



THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্বৰ দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

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No. 456 Dispur, Thursday, 23rd June, 2022, 2nd Ashadha, 1944 (S. E.)

GOVERNMENT OF ASSAM

ORDERS BY THE GOVERNOR

DEPARTMENT OF HOUSING AND URBAN AFFAIRS

NOTIFICATION

The 1st June, 2022

No.UDD(T)213/2022/6.— In exercise of the powers conferred by the Section 9 and Sub-section (1) of Section 10 of the Assam Town & Country Planning Act, 1959 (as amended) and (Assam Act II of 1960) read with sub-rule (1) of Rules 3 of the Assam Town & Country Planning (Publication of Master Plan and Zoning Regulations) Rules 1962, the Governor of Assam is pleased to publish the following notice regarding the publication of the Draft Master Plan for Lanka.

Notice for publication of the Draft Master Plan for Lanka

1. It is notified that the Draft Master Plan for Lanka prepared by the Directorate of Town & Country Planning, Government of Assam, Town & Country Planning Act, 1959(as amended) read with sub-section 1 of Section 10 of Assam Town & Country Planning Act, 1959 (as amended) for the area described in the schedule below is hereby published.
2. Any person or persons affected by the Draft Master Plan may submit their objections or opinions in writing to the Director, Town & Country Planning, Government of Assam, Dispur, Guwahati-6 within two months from the date of publication.
3. The Draft Master Plan with all relevant papers and maps may be inspected free of cost during the office hours at the office of Director, Town & Country Planning, Dispur, Guwahati-6, the Deputy Director, Town & Country Planning, Dist Office –Nagaon, the Circle Office, Lanka Revenue Circle, Lanka, office of the Chairman, Lanka Municipal Board, Lanka. Copies of the Draft Master Plan are available at the office of the Deputy Director, Town & Country Planning, Dist. Office – Nagaon for sale on payment.

SCHEDULE**A. Situation and area:**

District	: Hojai
Sub- division	: Hojai
State	: Assam.
Master Plan Area	: 31.05 Sq. Km.
Municipal Board Area	: 8.15 Sq.Km.

A part from the Lanka Municipal Board Area, Lanka Master Plan area covers 13 Nos. of nearby villages. The villages included in the Draft Master Plan for Lanka with Mouza are as follows:-

Sl. No.	Mouza	Villages
1	Lanka	1. Panjabi Basti
		2. Pub Bhalukmari
		3. Sambaria
		4. Pach Bhandar
		5. Lakhipur
		6. Rani Pukhuri
		7. Uttar Baluhandar
		8. Jura Pukhuri
		9. Shankar Basti
2	Kaki	10. Bar Pukhuri
		11. Ban Bengena Ati
		12. Pipal Pukhuri No.1
		13. Pipal Pukhuri No.2

B. Description of boundaries:

NORTH	: Doboka Town
SOUTH	: Singjurigaon
EAST	: Udali Gaon
WEST	: Pacchim Baluhandar

KAVITHA PADMANABHAN,
 Commissioner & Secretary to the Government of Assam,
 Department of Housing and Urban Affairs,
 Dispur, Guwahati-6.

*Chapter : 1***INTRODUCTION TO MASTER PLAN AREA**

Lanka is a part of Central Assam District of Hojai. Lanka is located about 11 Kms on the South of District Headquarter Sankardev Nagar. It is located 179 Kms east of the State Capital, Dispur, Assam, 62 Kms towards South- West of Nagaon Town and 17 Kms from Hojai Town. It is a commercial place situated in the central part of Assam.

Initially Lanka Town Committee was formed on 01/08/1975 and by election the Town Committee was established w.e.f. 01/08/1975 under the Chairmanship of Lanka Town Committee. The Town Committee was upgraded to Lanka Municipal Board in the year 2002.

Lanka is well connected by road and railway. NH-36 the famous east west corridor cross the Lanka town. This highway is now numbered as NH-27, an east-west corridor connecting Porbander in Gujarat to Silchar in Assam. The highway is being developed as a four-lane highway by the National Highways Authority of India. Lanka is also served by a railway line which Guwahati - Lumding BG line connecting to all parts of Assam and also to Delhi, Howrah, etc. The town is about 150 km by rail and 185 km. by road from Guwahati. Lanka Nearest airport is Dimapur Airport distance 55.62 km.

The demarcation of the planning area of Lanka has been made considering the present growth of the town, the physical feature of the surrounding areas, communication network, different type of developmental works already come up in nearby villages and potential for future development of the region. The town has been growing towards Lanka - Shillong Road, Lanka Nagaon Road.

As of 2011 Census of India, Lanka Municipality Board Area has a population of 36,805 of which male population is 18,81130 and female population is 17,975.

It was observed that Lanka town area has been growing haphazardly and this has created enormous problems to the habitant of the town. In this context ,

“Draft Master Plan Lanka 2045 is prepared to guide the physical development of the town with some surrounding villages in future. This plan is prepared, basically a land use plan considering all the urban development aspects, with forecasting all the service up to 2045. By and large, this Master plan has been prepared as per the provision of URBAN DEVELOPMENT PLANS, FORMULATION AND IMPLEMENTATION, GUIDELINES, 1996 prepared by the INSTITUTE OF TOWN PLANNERS, INDIA NEW DELHI under the assistance of the Ministry of Urban Affairs and Employment, Govt. of India, New Delhi and Circular issued by U.D.D (T & CP Wing), Govt. of Assam time to time. Uniform Zoning Regulations are considered as it is already approved for all the towns of Assam including Lanka Town by the Govt. of Assam.

1.1 LOCATION:

Lanka is a town in Hojai District of Assam, It is located at **Latitude** 19° 13' 60.00" N and **Longitude** 80° 45' 59.99" E. It serves as a trade and commerce hub for nearby areas such as Udali, Nokhuti, Laskar Pather, Karikhana, Kheroni, Dablong, and Doiyong sides. It is connected to other cities/states such as Guwahati by NH27.



Location of Lanka Town

1.2 BRIEF HISTORICAL DEVELOPMENT OF LANKA:

The name ‘Dabak’ is a derivative of the Sanskrit word ‘Devark.’ In olden times, water was scarce, and then by the regional language Lang Kha means the same, hence the name of the place came into being. During that time the place was barren land. During the British Invasions, water was brought by wagons and this place was also made the base camps. It was only after the 1950 Assam–Tibet earthquake that the water level raised again.

Rangmahala, a place in the outskirts of Lanka had the King's Amusement palace or Rangmahal. After the rulers abandoned Lanka, Khasi-Jayantiya started to rule. When King Viswasundar was the ruler of DABAK, Lanka was an independent state. An inscription of the 13th century discovered near Dabaka has the following lines about Lanka:

“KachharrajyadjayantaylankantarajyabantaYajnamenongdaabekamandalimathas thakaryamasa.” The Lankeswari Temple is of historical significance for the place. It is very much linked to the heart and culture of Lanka.

In 1505, the first prophet of the Sikhs, Guru Nanak Dev had visited Kamrup, Assam. This fact is recorded in the documents concerning the numerous journeys undertaken by Guru Nanak in various stages of his life. It is said that he had Srimanta Shankardeva, the founder of the Mahapuruxiya Dharma as the Guru traveled from Dhaka to Assam.

After this journey by the first Guru, Ninth Guru or prophet of Sikhs Guru Tegh Bahadur also visited Assam in 1668. This was when the armies of Aurangzeb tried their best to cross the Brahmaputra river and enter the Assam. They were thoroughly routed by the Ahom general Lachit Borphukan. Guru visited the place called Dhubri; a famous Sikh Gurudwara was constructed to commemorate his visit. Every year Sikhs from all over India and foreign lands visit this holy place. The grateful Ahom King invited Guruji to the Kamakhya shrine, where he was honored. While some died and some came back to Punjab, a few stayed on and made Assam their home, raising families. Their descendants today— mainly concentrated in the Nagaon district — are Assamese for all practical purposes, and none speaks Punjabi, but continue to maintain their Sikh identity and observe most tenets and traditions of the religion.

1.3 CLIMATE:

The climate of the Hojai district as well as Lanka town is characterized by a highly humid atmosphere all through the year. The monsoon starts from the month of May and continues up to August. The winter is cool and starts from November and continues up to February. Generally weather is dry. The maximum and minimum temperature varies from 35.40 Degree C (Max.) 12.47 Degree C (Min). The maximum rain occurs between June to September and average annual rainfall of Lanka is 1726.05 MM.

Table: Climatic condition of Lanka

Sl.No.	Parameter	Description
1.	Temperature	35.40 Degree C (Max.) 12.47 Degree C (Min)
2.	Extreme months	July in Summer and December in Winter
3.	Coldest month of the Year	December
4.	Humidity	78% (Max)
5.	Rainfall	1726.05 MM (Annually)
6.	Monsoon Period	53 rainy Days
7.	Winter Season	November to February

1.4 TOPOGRAPHY:

Lanka town is situated on the flat alluvial plain. The land is alluvial and loamy and consists of clay and sand. The cultivable land is scattered either sides of the surrounding villages nearest to the town. In considering the high land as well as the physical features of the surrounding areas the Town is growing mainly towards Nagaon National Highway-27 The famous Lankeswari Mandiris located on the Lanka.

1.5 CITY INFLUENCE AND ITS CHARACTERISTICS INCLUDING SETTLEMENT PATTERN, RURAL-URBAN SCENARIO, HISTORY OF THE PHYSICAL GROWTH AND EXPANSION OF LANKA TOWN:

Rural-Urban fringe is an important concept in settlement geography. The rural-urban fringe is the boundary zone outside the urban area proper where rural and urban land uses intermix. It is the area where the city meets the countryside. It is

an area of transition from agricultural and other rural land uses to urban use. Located well within the urban sphere of influence the fringe is characterized by a wide variety of land use including dormitory settlements housing middle-income commuters who work in the central urban area. Over time the characteristics of the fringe change from largely rural to largely urban. Suburbanization takes place at the municipal boundary of rural-urban fringe.

The main economy of the Lanka rural-urban fringe is agriculture base. The surrounding small villages were also influence the main urban centre. The trading of agricultural finished goods produce in the rural-urban fringe area was taking place with the main urban centre.

While considering the agro base economy of the rural-urban fringe, secondary and other allied services has to be initiated to boost up the economic growth of the main urban center as well as the whole Lanka planning area. The main reason of low profile economy of the town is that less number of people are engaged in secondary, quaternary and other allied services.

Activities related to trade and commerce and transportation alone comprise only 32% of the total employment of the town. It is expected that employment related to transportation and trade & Commerce is going to increase further after the road linkage is established with the town and surrounding villages.

Lack of infrastructure is also responsible in a substantial manner for economic and industrial development of the Lanka town. If adequate urban infrastructure such as efficient transportation network, well planned market etc. is provided then the town cannot only upgrade its economic base but also act as a centre for industrial activities of the whole Lanka planning region.

Therefore, the prime objective of the development strategy of Lanka town will be to bring positive development in the town by improving existing physical infrastructure of the town, so as to encourage more and more people to participation in the secondary and tertiary sector of employment. This will generate more employment in the town, strengthen the local bodies as well as improve the socio-economic condition of the people.

The commercial areas of the town are mainly lying on the state and central Highways. The small villages which are surrounding the town is influenced the trade & commerce of the town, ultimately on the economy of the town. A development plan for overall development of the town has been formulated. The

preparation of Master Plan of the town is necessary for the infrastructure development of the town. It is essential to increase the present growth of the economy of the town by removing the weak economic base. The weak economic base is shortage of power, low flow of capital, lack of skilled labour etc. Lanka town is a vital place for Hotel business. Technical Educational institution, if set up in Lanka town, the trainers from Karbi-Anglong, Dima-Hasou and surrounding areas of Lanka town can find a convenient place. Entertainment centers can play an important role in the growth of the Lanka's economy.

1.6 CONCEPT OF MASTER PLAN:

A master plan is a dynamic long-term planning document that provides a conceptual layout to guide future growth and development. Master planning is about making the connection between buildings, social settings, and their surrounding environments. A master plan includes analysis, recommendations, and proposals for a site's population, economy, housing, transportation, community facilities, and land use. It is based on public input, surveys, planning initiatives, existing development, physical characteristics, and social and economic conditions.



1.7. MASTER PLANNING CAN ASSUME SOME OR ALL OF THESE ROLES:

Develop a phasing and implementation schedule and identify priorities for action:

- Act as a framework for regeneration and attract private sector investment.
- Conceptualize and shape the three-dimensional urban environment.
- Define public, semiprivate, and private spaces and public amenities.
- Determine the mix of uses and their physical relationship.
- Engage the local community and act as builder of consensus.

As city regeneration initiatives are generally long-term propositions, it is important to consider the master plan as a dynamic document that can be altered based on changing project conditions over time.

Master plans can have an important role in determining the shape of the urban environment. If not well conceived, they can lead to problems in the future. All of these issues could have been addressed well in advance as part of the master plan.

The proposals for development should be environmentally sustainable. Master Plan is based on inclusive planning. It considers all sections of people in society in development proposals and focuses on affordability. Master plan gives restrictions on ecologically sensitive areas, on heritage sites and traditional built up areas and gives special norms for these places. Master Plan leads to a balanced growth of the city. It prevents concentration of a particular activity at one place and takes into account efficient distribution of facilities, infrastructure, networks and housing and follows neighborhood concept of development.

1.8 NEED OF A MASTER PLAN FOR LANKA TOWN:

A master plan or a development plan or a town plan may be defined as a general plan for the future layout of a city showing both the existing and proposed Land use plan. A master plan is prepared either for improvement of an old city or for a new town to be developed on a virgin soil. A master plan is a blueprint for the future. It is a comprehensive document, long-range in its view; that is intended to guide development in the township for the next 20 to 25 years.

It helps in restricting the haphazard and unplanned growth, arranges the pattern of a town in such a way so as to satisfy the present requirements without introduction of future improvements by the coming generations. It also aims at intelligent and economic spending of the public funds for achieving welfare of the inhabitants in respect of amenity, convenience and health.

On the other hand Master Plan also serves as a guide to the planning body for making any recommendations for public improvement. It removes the defects of uncoordinated physical growth of the various components of a town due to the fact that it considers the entire city area or town as planning and development entity.

To check the haphazard and unplanned growth of the town which have come up due to over-crowding of population such as acute shortage of houses, traffic congestion, inadequate open spaces and insufficiency in public amenities etc, to incorporate the unforeseen development and arranges the pattern of township have lead to the thinking of Preparation of GIS based Master Plan for Lanka town.

1.9 LANKA AS A URBAN LOCAL BODY:

Lanka Municipal Board :Lanka Town Committee was formed in the year 1975 dated 01/08/1975 and by election the Town Committee was established w.e.f. 01/08/1975 under the Chairmanship of Lanka Town Committee. The Town Committee was upgraded to Lanka Municipal Board vide Govt. Notification No. MA -105/95/109 Dated 27th, August 2002 and awarded to Lanka Town by the Government of Assam to establish a Town Committee for providing the basic infrastructure facilities to the inhabitants of the town. The Town Committee was established and run-in accordance with the provisions laid down in the Assam Municipal Act of 1956. Lanka town comes under the Administration of Lanka Town Committee with 11 Nos. of wards in the town and as on 2021 there are 11 Nos. of Municipal wards in the town.

Total area of Lanka Municipal is 8.15 sq. km. with total road length of 72 Km .Lanka Municipal Board consists of the Chairman, Vice-Chairman and wards commissioners who are elected representatives of the wards. The Chairman is the head of the Administration and presides over the meetings of the board. The Executive Officer oversees and administers the plan and execution of the day-to-day activities of the board. Lanka Municipal Board is basically entrusted with

the maintenance of roads and drainage system, streets lights, public health facilities and medical, water supply to the inhabitants in the Municipal boundaries in collaboration with PHE Department.

Lanka Municipal Board also maintains recreational parks, libraries, community halls and municipal markets. Lanka Municipality Boards has various sources of revenue collection and also receive annual grants from the Government. It levies taxes on holdings, rickshaws, carts, cycles, stalls, open spaces, markets and receives taxes on houses, land, water and sanitation.

Lanka Planning Area is boundary by Doboka Town on North, Singjurigaon on South, Udali Gaon on East and Pachim Baluhandar on West.



Lanka Municipal Board

DEMOGRAPHY

The scientific or more specifically statistical study of population, its size, density, distribution and growth are known as demography. The study of population and its relating characteristics are the basic factor for long range planning works in a town or a city. The study of change in the population and its distribution and composition are also enabling to force the growth of the urban area. The important demographic aspects like housing facilities, urban infrastructure development both for present and future should be thoroughly studied during the preparation of any development plan.

An analysis of demographic features like growth of population, its distribution & composition etc. is absolutely necessary to assess the various civic needs like housing facilities, urban infrastructure and other basic services and the amenities. These important aspect of demography both present and future have been thoroughly studied at the time of preparation of Lanka Master Plan.

2.1 Lanka Municipal Areas Population, Religion, Caste, Working Data Hojai, District, Assam - Census 2011

Lanka is a Municipal Board city situated in Lanka circle of Hojai district. The Lanka city is divided into 11 wards for which elections are held every 5 years. As per the Population Census 2011, there are total 7,406 families residing in the Lanka city. The total population of Lanka is 36,805 out of which 18,830 are males and 17,975 are females thus the Average Sex Ratio of Lanka is 955.

The population of Children of age 0-6 years in Lanka city is 3907 which is 11% of the total population. There are 1986 male children and 1921 female children between the age 0-6 years. Thus as per the Census 2011 the Child Sex Ratio of Lanka is 967 which is greater than Average Sex Ratio (955).

As per the Census 2011, the literacy rate of Lanka is 86.8%. Thus Lanka has higher literacy rate compared to 72.4% of Hojai district. The male literacy rate is 91.2% and the female literacy rate is 82.28% in Lanka.

Lanka Municipal Board has total administration over 7,406 houses to which it supplies basic amenities such as water and sewerage. It is also authorize to build roads within Municipal Board limits and impose taxes on properties coming under its jurisdiction.

2.2 Lanka Municipal Board

As per the Population Census 2011 data, following are some quick facts about Lanka Municipal Board.

	Total	Male	Female
Children	3,907	1,986	1,921
Literacy	86.8%	81.6%	73.5%
Scheduled Caste	7,185	3,742	3,443
Scheduled Tribe	168	85	83
Illiterate	8,234	3,468	4,766

Source: Census of India

2.3 Caste-wise Population – Lanka Municipal Areas

Schedule Caste (SC) constitutes 19.5% while Schedule Tribe (ST) were 0.5% of total population in Lanka.

	Total	Male	Female
Schedule Caste	7,185	3,742	3,443
Schedule Tribe	168	85	83

Source: Census of India

2.4 Religion-wise Population – Lanka Municipal Areas

As per the Census 2011, the total Hindu population in Lanka is 32,447 which is 88.16% of the total population. Also the total Muslim population in Lanka is 3,703 which is 10.06% of the total population. Below is religion-wise population of Lanka as per Census 2011.

Religion	Total		Male	Female
Hindu	32,447	(88.16%)	16,651	15,796
Muslim	3,703	(10.06%)	1,836	1,867
Christian	20	(0.05%)	12	8
Sikh	541	(1.47%)	286	255
Buddhist	4	(0.01%)	2	2
Jain	65	(0.18%)	32	33
Other Religion	8	(0.02%)	4	4
No Religion Specified	17	(0.05%)	7	10

Source: Census of India

2.5 Sex Ratio – Lanka Municipal Areas

The Sex Ratio of Lanka is 955. Thus per every 1000 men there were 955 females in Lanka. Also as per Census 2011, the Child Sex Ratio was 967 which is greater than Average Sex Ratio (955) of Lanka.

2.6 Lanka Municipal Areas Wards Wise Population

A ward is a local authority area, typically used for electoral purposes. Lanka is further divided into 11 wards where elections are held every 5 years.

#	Ward	Population	Literacy	Sex Ratio
1	Ward No - 1	3,182	77.9%	958
2	Ward No - 2	3,816	85%	996
3	Ward No - 3	2,299	63.2%	1,115
4	Ward No - 4	3,178	72.7%	927
5	Ward No - 5	3,750	75.6%	969

6	Ward No - 6	5,024	76.8%	932
7	Ward No - 7	3,643	77.3%	943
8	Ward No - 8	1,945	78.6%	977
9	Ward No - 9	3,405	84.5%	951
10	Ward No - 10	3,804	74.8%	894
11	Ward No - 11	2,759	84.5%	917

Source: Census of India

2.7 GROWTH OF POPULATION:

To better understand the trend of growth of population within Lanka Master Plan Area, population had been calculated from the year 1971 Census. The population of Lanka town as per 1971, the then census town was 8057 and it has increased to 34423 in 2001 and 36805 in 2011 as per census of India. The population of Lanka Master Plan area shows a steady growth. Following table shows the growth of population of Lanka Town as well as the Rural area.

Table: Trend of Population Growth in Lanka Master Plan Area :

Year	Municipal Area			Rural Area (Excluding Lanka M.B. Area Population)		
	Lanka M.B. Area Population	Total increase	Growth rate per decade	Village Area Population	Total Increase	Growth rate per decade
1971	8057	-		12788	-	
1981	15200	7143	86.65	14995	2207	17.26
1991	19066	3866	25.43	18502	3507	23.39
2001	34423	15357	80.55	23482	4980	26.92
2011	36805	2379	6.91	28408	4926	20.98

Source: Census of India

Table: Village Wise Population and occupied residential houses of Lanka M.P. Area as per Census, 2011:

Sl. No.	Locations/Villages	Population 2011	Male	Female	Households	Area in sq. Km
1	Panjabi Basti	1,564	778	786	317	1.88
2	Pub Bhalukmari	2,643	1,365	1,278	476	4.46
3	Sambaria	5,000	2,599	2,401	992	3.64
4	Pach Bhandar	1,501	760	741	276	2.97
5	PipalPukhuri No.1	2,314	1,184	1,130	461	3.49
6	Rani Pukhuri	3,956	2,091	1,865	743	5.91
7	Uttar Baluhandar	357	194	163	67	0.55
8	Jura Pukhuri	1,581	840	741	294	2.09
9	Ban Bengena Ati	1,113	557	556	210	1.68
10	Bar Pukhuri	1,670	859	811	315	1.69
11	Lakhipur	1,237	622	615	243	1.59
12	Shankar Basti	1,826	919	907	379	3.68
13	Pipal Pukhuri No.2	3,646	1,891	1,755	715	6.54
Total		28408	14659	13749	5488	

Source: Census of India

2.8 SIZE OF THE HOUSEHOLD:

The 2011 Census shown that more than half of the household in the region were medium sized with an average member more than 5.5 Nos. According to census 2011, the medium sized households (5-5.5) is predominant because of the increasing trends towards nuclear households densely settled and rapid urbanization are at higher rate, there will be considerable pressure on housing in coming future. The overall household size of Lanka Master Plan Area is 5.60, where as the Household size is Lanka M.B is 5.52 and Village areas is 5.65.

2.9 POPULATION PROJECTION FOR THE YEAR 2045:

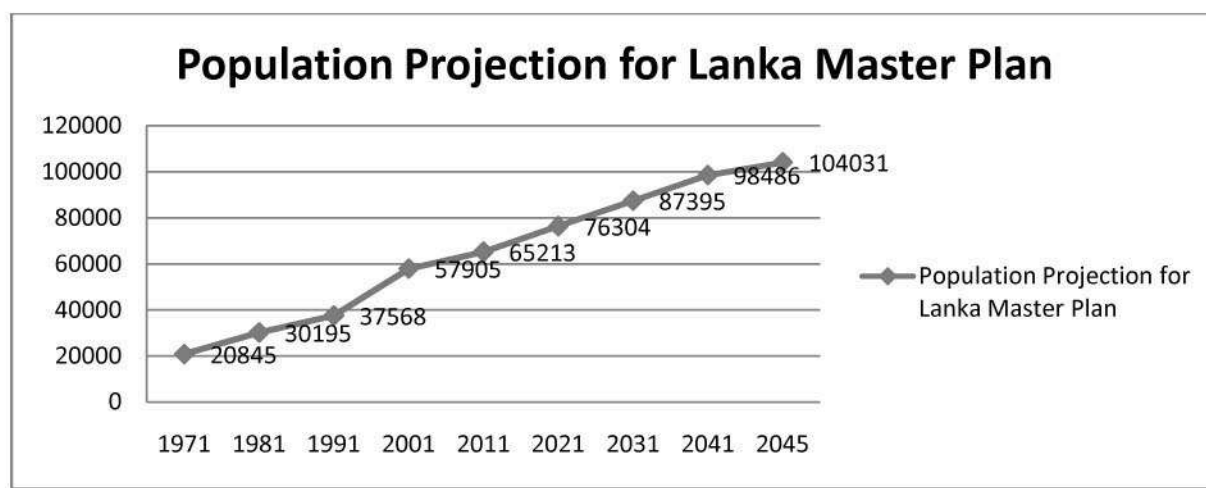
Population projection is a scientific/mathematical attempt to peep into the future population scenario, conditioned by making certain assumptions using data to the past available at the point of time.

It is mandatory for Government policy makers and planners to determine the future demand for basic human needs such as food, water, education, health, energy, and other services and to forecast future demography characteristics.

The population projection of Lanka Master Plan area done by utilizing the maximum possible accuracy methods like Arithmetic Increase method and Incremental Increase Method to determine the future population which are shown in the table below :

Table: Population Projection of Lanka Master Plan Area:

Year	Municipal Area						
	Lanka M.B. Area Population	Total increase	Village Area population	Total increase	Total Population in the Planning Area	Total Increase	Growth rate (%)
1971	8057	-	12788	-	20845	-	-
1981*	15200	7143	14995	2207	30195	9350	44.85 %
1991	19066	3866	18502	3507	37568	7373	24.42%
2001	34423	15357	23482	4980	57905	20337	54.13 %
2011	36805	2379	28408	4926	65213	7305	12.61 %
2021	43991 (p)	-	32313(P)	-	76304 (p)	-	-
2031	51177(P)	-	36218(p)	-	87395 (p)	-	-
2041	58363(P)	-	40123 (p)	-	98486 (p)	-	-
2045	61956(p)	-	42075 (p)	-	104031 (p)	-	-



*Chapter: 3***ECONOMIC BASE AND EMPLOYMENT:**

The economic base deals with how a community earns its living. It consists of that proportion of employment and income generated in a local community that determines the overall level of production. The growth, decline or stagnation of the local community rests upon the basic economic activity, which goes beyond local needs.

There are several measures of economic activity, but employment and income are the most commonly used in actual case studies. Information about employment and income values are the easiest to find at the county level.

Employment comprises all persons of working age who during a specified brief period, such as one week or one day, were in the following categories of paid employment (whether at work or with a job but not at work); or self-employment (whether at work or with an enterprise but not at work).

The working- age population is the population above the legal working age, but for statistical purposes it comprises all persons above a specified minimum age threshold for which an inquiry on economic activity is made.

The classification by economic activity refers to the main activity of the establishment in which a person worked during the reference period. The branch of economic activity of a person does not depend on the specific duties or functions of the person's job, but on the characteristics of the economy.

3.1 FORMAL SECTOR EMPLOYMENT:

Formal sectors represent all jobs with specific working hours and regular wages and the worker's job is assured. The workers are employed by the government, state or private sector enterprises. It is a licensed organization and is liable to pay taxes. It includes large-scale operations such as banks and other corporations.

From the raw data and T&CP, Nagaon survey team report it is found that out of the total working population in Lanka town area only about 73% populations are engaged in the formal sector of employment.

3.2 INFORMAL SECTOR EMPLOYMENT:

The majority of urban workers in developing countries earn their livelihoods in the informal economy. Therefore, understanding urban informal employment is critical to promoting inclusive cities and reducing urban poverty. But, many cities around the world are actively undermining or destroying urban informal livelihoods. Practices that exclude informal workers from participating in cities are the norm in many parts of the world: there are daily reports of slum and street vendor evictions and unreported harassment of informal workers by local authorities, including bribes and confiscation of goods, on a daily basis.

In response, organizations of urban informal workers are gaining in numbers, strength and solidarity; and are demanding more inclusive urban policies and practices in support of their livelihoods. Over the past year or more, with support from the WIEGO Network, some of these organizations have jointly sought to integrate a focus on informal livelihoods in the policy discussions before and at the Habitat III summit and in the New Urban Agenda document which will be adopted at that summit.

Home-based producers, street vendors, and waste pickers are all age-old occupations in which large numbers of urban workers around the world are still employed, especially in developing countries. Few have secure work; most have low and erratic earnings and few are protected against loss of work and income. Most operate outside the reach of government regulations and protection; yet many are harassed or repressed by the police or other local authorities and excluded from economic opportunities.

Informal Sector is playing an important role in the development for any place or region. The sector is contributing to Gross Domestic Product, employment generation, export of goods and products etc. In Lanka informal employment is more than the formal employment. As Lanka is a trade and Commercial town, most of the people were engaged in informal sector of economic activities, mainly secondary, tertiary and quaternary sector activities. Tertiary sector of economic activities were found along the major roads of Lanka town. Retailers of Grocery products, Vendors (fruits, vegetables, others) both permanent and

non permanent, Stationeries stores, Drugs stores, Automobiles parts, Business, Hotels, restaurant, Banking, etc.

It is observed that some encroachments on the both side of the footpath by the illegal vendors, which acutely rise the traffic congestion at Lanka-Shillong road and Lanka Main bazar road .

Secondary service activities like manufacturing of raw products into finished product. These type of services are also found in Lanka and surrounding area i.e Bricks kiln, CC Block Pavement, Rice mill, saw mill, Agarwatti manufacturing etc. Educational intellectual, ITI, Diploma, all these type of activities were falls under the category of Quaternary services.



Vendors in Lanka Town

3.3 OCCUPATIONAL PATTERN:

According to Census of India, worker is defined as person who does business, job, service, and cultivator and labour activity. The capacity of an urban area to provide variety of jobs, absorb its working population in various sectors of economy is an indicator of the economic viability of the urban area. The participation rate also gives us an idea of the share of gainfully employed persons against the dependent and non-working population. Generally the participation rate in the urban area is high compared to the rural area.

Occupation pattern is different of the peoples of Lanka Master Plan Area. The rural peoples are mainly based upon the primary sector activities like

agricultural and allied activities such as Horticulture, Forestry, Fishery, Animal Husbandry (dairy, poultry, and goat), Floriculture etc.

On the other hand urban livelihoods are based upon secondary and tertiary activities like manufacturing and services etc.

In Lanka Municipal Board out of total population, 12,255 were engaged in work activities. 88.9% of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 11.1% were involved in Marginal activity providing livelihood for less than 6 months. Of 12,255 workers engaged in Main Work, 328 were cultivators (owner or co-owner) while 283 were Agricultural labourer.

Table :

	Total	Male	Female
Main Workers	10,896	9,771	1,125
Cultivators	328	317	11
Agriculture Labourer	283	247	36
Household Industries	178	125	53
Other Workers	10,107	9,082	1,025
Marginal Workers	1,359	1,031	328
Non Working	24,550	8,028	16,522

Source: Census of India

Chapter: 4**HOUSING AND SHELTER**

Housing is one of the most important life components giving shelter, safety and warmth, as well as providing a place to rest. Housing or quality of life is more dependent on some elements of housing areas such as disposition of various working areas, layouts development of land, provision of roads, water supply system, sewerage, drainage and provision of basic amenities like shops, schools, parks and play grounds etc. The urban form and character emerges from the quality of housing areas and inter relationship of housing areas with work centre and other non- residential areas.

Housing is a major element of people's material living standards. It is essential to meet basic needs, such as for shelter from weather conditions, and to offer a sense of personal security, privacy and personal space. Good housing conditions are also essential for people's health and affect childhood development.

The urban housing is mainly restricted to within the Municipal boundaries. The residential areas outside the municipal areas are rural housing. Normally the rate of housing spread of town should range between 6-7 hectare per 1000 persons and the rate of housing spread within the Master Plan Area is around 22 Hectare per 1000 persons.

Table : Ward wise population distribution and Nos. of households of Lanka Municipal Area :

Ward No.	Population as per 2011	No. of household	Housing size
Ward No - 1	3,182	642	4.96
Ward No - 2	3,816	744	5.12

Ward No - 3	2,299	432	5.32
Ward No - 4	3,178	681	4.67
Ward No - 5	3,750	789	4.76
Ward No - 6	5,024	1030	4.88
Ward No - 7	3,643	660	5.52
Ward No - 8	1,945	381	5.10
Ward No - 9	3,405	695	4.90
Ward No -10	3,804	762	5.00
Ward No -11	2,759	574	4.81
Total	36,805	7,390	-

Source: Census of India, 2011

Table: Village Wise Population and occupied residential houses of Lanka M.P.
Area as per Census, 2011:

Sl. No.	Locations/Villages	Population 2011	Male	Female	Households	Area in sq. Km.
1	Panjabi Basti	1,564	778	786	317	1.88
2	Pub Bhalukmari	2,643	1,365	1,278	476	4.46
3	Sambaria	5,000	2,599	2,401	992	3.64
4	Pach Bhandar	1,501	760	741	276	2.97
5	PipalPukhuri No. 1	2,314	1,184	1,130	461	3.49
6	Rani Pukhuri	3,956	2,091	1,865	743	5.91
7	Uttar Baluhandar	357	194	163	67	0.55
8	Jura Pukhuri	1,581	840	741	294	2.09
9	Ban Bengena Ati	1,113	557	556	210	1.68
10	Bar Pukhuri	1,670	859	811	315	1.69
11	Lakhipur	1,237	622	615	243	1.59
12	Shankar Basti	1,826	919	907	379	3.68
13	Pipal Pukhuri No. 2	3,646	1,891	1,755	715	6.54
Total		28408	14659	13749	5488	

Source: Census of India, 2011

4.1 HOUSING CONDITION:

Housing condition includes the study of housing base on type of structure i.e., permanent/ semi- permanent, physical infrastructure, mass space relationship, condition of the material use for walls and floors etc. It is important to be studied because it indicates the efficiency and sustainability of the housing stocks, whether the houses are livable or not. Based on the above said parameters, the condition of houses has been segregated and the analysis is done as good, livable and dilapidated houses of Lanka Municipal Area comparing with Hojai District.

Table: Housing condition:

Area	Residence (%)			
	Total	Good	Livable	Dilapidated
Assam	62,72,151	33%	56%	11%
Hojai District	42,851	34.1%	56.2%	7.7%
Lanka M.B.	7,390	34.6%	55.5%	10%

Source: Census of India, 2011 and T&CP, Nagaon Compilation

4.2 CONSTRUCTION MATERIAL OF HOUSE:

The survey carried out by Town and Country Planning, Nagaon in 2020-21 and as per Census of India, 2011, it is found that the overall housing condition in the Lanka Master Plan area is quite satisfactory. Though the percentage of R.C.C. structure is less in the planning area, the semi pucca structure occupies more than 47.1% of the total houses. The following table shows the condition of existing housing stocks of Lanka Master Plan Area.

Table: Materials used for roof:

Area Name	Total Number of HHs	Grass/ Thatch/ Wood/ Mud	Plastic Polythene	Handmade Tiles	Machin e made Tiles	Burn t Bric k	Stone / State	G.I./ Metal/ Asbestos/ sheets	Con crete	Any other Material
State	62,72,151	18.60 %	2.10 %	0.70%	0.3%	0.1%	0.80 %	74.20%	2.90 %	0.20%
District	42,851	24.1%	0.2%	0.3%	0.1%	0.1%	1.6%	70.4%	3%W	0.2%
Lanka M.B	7,390	4.2%	0.1%	0.2%	0%	0%	2.1%	89.4%	3.9%	0%

Source: Census of India, 2011

Table: Materials used for walls:

Area Name	Grass/Thatch / Bambo o etc.	Plastic/ Polythene	Mud/ Unburnt Brick	Wood	Stone not packed with mortar	Stone packed with mortar	G.I./Metal/ Asbestos sheets	Burnt Brick	Concrete	Any other Material
State	66.40%	0.60%	3.60%	1.60%	0.70%	1.40%	1.10%	21.20%	2.90%	0.50%
District	65.8%	0.5%	5.1%	2.3%	1.5%	4%	0.2%	17.4%	2.7%	0.6%
Lanka M.B	61%	0.3%	2.2%	4.8%	5.6%	2.4%	0.1%	19.5%	2.3%	1.7%

Source: Census of India, 2011

Table-15: Materials used for floor:

Area Name	Mud	Wood/ Bamboo	Burnt Brick	Stone	Cement	Mosaic/ Tiles	Floor	Any other material
State	78.60	2.10	1.20	0.40	16.60	1.00		0.10
District	81.6%	0.6%	1.3%	0.6%	15.3%	0.7%		0%
Lanka MB	63.1%	0.2%	1.8%	0.9%	33.7%	0.3%		0%F

4.3 AVAILABILITY OF LATRINE AND BATHROOM :

As per 2011 Census about 95.2% of households have sanitary latrine and Bathroom and 52.2% of the households have other type of latrine in the Lanka Master Plan Area.

4.4 HOUSING STOCK AND FUTURE REQUIREMENT:

The housing requirement is more in the urban area than that in the rural areas. Almost all people in rural area have got their own house. The total housing stock and future requirement of houses up to 2045 in the Lanka Master Plan Area were calculated based on the city/ town level data on the houseless population and pavement dwellers, the houseless population is derived from the data published as part of Census of India, 2011. The total requirement of dwelling unit in the planning area as per the planning norms is as follows:-

4.5 HOUSING REQUIREMENT FOR FUTURE POPULATION OF LANKA TOWN AREA TILL 2045:

61956 - 36805 Nos. = 25151

Assuming family size of 5 persons, new houses will be required

$25151/5 = 5030$ Nos.

Housing Requirement for future Population of Lanka Rural Area till 2045.

42075-28408 = 13667

Assuming family size of 5 persons, new houses will be required

$13667/5 = 2733$ Nos.

Housing Requirement for future Population of Lanka Master Plan Area till 2045

104031-65213 = 38818 Nos.

Assuming family size of 5 persons, new houses will be required

$38818/5 = 7763$ Nos.

Table: Total housing stock and future requirement of houses :

Sl. No.	Area	Total No. of housing stock as per 2011	Housing requirement up to 2045
1	Lanka M.B Area	25151	5030 Nos
2	Rural Area	13667	2733 Nos
Total		38818 nos.	7763 nos.

*Chapter: 5***TRANSPORTATION**

An effective transport system offers social, economic, political and cultural advantages like accessibility to markets, infusion of investors, distribution of resources, etc that result in an indirect impact on the growth and development of a country. It can be measured in terms of added value and employment .A mode of transport is a solution that makes use of a particular type of vehicle, infrastructure, and operation.

Transportation plays a major role in the daily life of human beings. It is necessary for things to be moved around and as transportation systems have developed over time, the speed and efficiency of these systems have improved drastically.

The importance of transportation is showcased in how individuals, businesses, and governments rely on it to access resources. A society cannot function optimally if it does not have measures in place to facilitate transport. From movement to work to travel around the world, being able to arrive at various places or deliver different items on time is vital for overall productivity and sustainable development.

In consideration of healthy growth, economic prosperity and improved living standards of a town or a city, a high- quality transportation network is essential. In addition, transportation and land use are to be integrated to achieve reduction in trip length, increase in public transports usage etc.

5.1 TRANSPORTATION NETWORK:**5.1.1 REGIONAL CONNECTIVITY OF LANKA:**

Lanka is well connected to Assam major cities like Nagaon, Guwahati, Tezpur, Diphu, Hojai through PWD roads to State highways via National highways which further connects to rest part of Assam in particular and India as a whole.

5.2 NETWORK OF ROAD:

Roads are part of urban and rural infrastructure. These roads are required for both intra-city and intercity movement and render much higher level of service compared to Regional Roads, State Highways and National Highways. Quality of life is depends on efficient and effective road system, of course, with the support of other infrastructural services such as water supply, sewerage, drainage, electricity, telephones etc. in order to perform social, economical & cultural activities.' Urban transportation network is required to facilitate movement of people and goods and therefore efficient network is necessary for their efficient movement.

Importance of Urban roads is increasing on account of the fact that urban areas are increasing in their size and number.

5.3 INTERCITY CONNECTIVITY (From Lanka) :

Lanka has the intercity connectivity by road as well as by rail. The table below shows to various modes of transportation and its connectivity with the nearest towns/cities like Nagaon, Guwahati, Lumding, Hojai, Doboka, Haflong, Hamren, Chaparmukh Jn.etc.

Table : Modes of transportation and its connectivity with the nearest cities/towns:

Urban centres from Lanka	Distance (KM)	Time (hrs.)	
		By Road	By Rail
Nagaon	62.2 km	1hr 11 min	1 hr 20min
Lumding	39.2 km	47min	1 hr 9 min
Doboka	26 km	33 min	-
Hojai	17.4	33 min	15 min
Haflong	132 km	4hr 9min	-
Guwahati	179 km	3hr. 31 min	3 hr 2 min
Diphu	72.4 km	1 hr 30 min	2 hr. 3min
Hamren	65.7 km	2 hr. 20 min	-

Modes of transportation

Table : Road Length (in Km) of Lanka M. B. Area:

Lanka MB Road	Lanka PWD Road	Total Length
63.175 km.	6.95 km.	68.687 km.

Table: Road connectivity and Distance:

Sl. No.	Road type	Connectivity	Distance
1	National Highway-27	Lanka to Nagaon via Doboka	62.2 km.
2	PWD	Lanka to Hojai	17.4 km.
3	National Highway-27	Lanka to Lumding	39.2 km.
4	State Highway-627	Lanka to Haflong via Dayang mukh	132 km.
5	State Highway-19	Lanka to Diphu via Nilbagan	72.4 km.

5.4 OVERVIEW OF CRITICAL ROADS:

The identification of critical road links is greatly important to the management and control of the transportation system. Existing works fail to fully consider the influence of the distribution of traffic flow and its dynamic characteristics on critical road link identification.

The study of critical roads mainly depends upon several factors like traffic conditions, road geometry characteristics, environmental factors etc. Field traffic surveys were carried out to capture the classified volume count for major arterial, sub-arterial and collector roads spread across Lanka Town. Based on the field survey data and traffic volume survey conducted by the T&CP, Nagaon at some major points were ascertained during peak hours. The critical roads in Lanka town as well as the Lanka Master Plan Area is identified the PWD road Lanka to Kheroni Chariali, Lanka to Hojai, are urgently need to decongest and future plan for widening and improvement to ensure free flow of traffic movement in Lanka Master Plan Area.

5.5 ANALYSIS OF TRAFFIC NODES:

The major traffic nodes in Lanka town are identified which are detailed as table-20 below:-

Area	Location of point	Description
Lanka Town Area	(i)Lanka Nagaon Rd. to Shillong Rd. Tiniali point	This is a commercial place consist of some shops, daily vegetable market and entry to Lanka Circle Office towards south, and daily market towards southwest.
	(ii) Lanka Netaji statue point	It is also a business center consist of variety of major shops, Pubic gathering Place entry to Lanka Municipal Board, Post Office, Police Station etc also.
	(iii) Lanka Fruit market point	It is a fully busiest daily Market area, also way to Haflong, Umrangso and connected to Shillong Road.
	(iv)Lanka Town Road Tiniali point	It is an important traffic intersection and transfer point and consist of commercial and business activities. It is a place of traffic congestion with NH-27 Road and entry to Lanka Town, A Bricks factory and a some residential areas.
	(v)SBI Bank Tiniali point	It is a commercial place comprising with some shops, daily vegetable markets, and entry to some Residential area. Lumding Rd. in the East and Lanka Railway station in the South.

5.5.1 BUS TERMINUS:

Public and Private Bus stands are most temporarily located at some busy road sides of Lanka town which causes the traffic congestion and traffic hindrance. The bus stands located at different places of the town and their characteristics are as given table-21 below:-

Terminal Centre	Location	Observation
A. Inter-City	Bus Station	
1. Passenger	i) Lanka- ASTC BUS Stop	Located Lanka Tiniali area. Parking space is not sufficient. Waiting shed, toilet facilities should be extended. Passenger's guest house facilities should be provided.
	ii) Lanka – Kheroni BUS stop	Very congested. Parking space is very narrow. Waiting shed and toilet facilities are nil. Immediately this bus station should be shifted.
	iii) Lanka – Car stand	Located at Lanka Netaji statue area. Campus of the Bus station is very narrow, so all the necessary facilities should be improved providing modern technology through proper planning. Waiting shed and toilet facilities are nil. Road side parking.

5.5.2 RAILWAY :

Lanka is connected by Indian Railways network. There are several trains plying from Guwahati and many other states of India via Lanka Railway Station and passes through Lanka to Lumding, Assam. The North - East Frontier Railway Broad gauge Line from lower Assam to Upper Assam connects Lanka to the rest of the other places. Hojai Railway Station, Lumding Railway Junction and Chaparmukh Rly. Jn is the nearest junction of Lanka Railway station. At

present, electrification network with dual track of whole North-East Frontier Railway is under progress under Ministry of Indian Railways, Govt. of India.

The existing platform of Lanka Railway Station should be upgraded and waiting shed should be extended. Guest house facilities should be established. Toilet and sanitation facilities are not sufficient to the need of the people. Booking and Reservation Counters should be opened. The platform is required to be upgraded providing all modern facilities. Guest house facilities should be established.



Lanka Railway Station

5.6 TRAFFIC VOLUME SURVEY:

The traffic volume survey in around the particular town or the city is urgently required to find out the possible solutions and improvement suggestions for the problem identified. The objectives covered in it includes identifying hourly distribution of vehicles and peak hour identification of the level of service and compare model composition on different hierarchy of roads etc.

The traffic volume survey conducted by the T&CP, Nagaon only at some main points and it is restricted only to peak hour survey from 9-00 a.m. to 11.00 a.m.

to identify better and efficient traffic operation plan. The following table shows the traffic volume of the 4 (four) main points within Lanka Master Plan Area.

Table:Traffic Volume Survey within Lanka Master Plan Area:

	Name of the survey point	Time:9:00 A.M to 11:00 A.M							
		In coming				Out going			
		Fast moving		Slow moving		Fast moving		Slow moving	
		Vehicle	Number	Vehicle	Number	Vehicle	Number	Vehicle	Number
1	Lanka / Nagaon Road (Near Netaji Statue)	Bus/M. bus-	73	Bi-cycle-	138	Bus/M bus-	70	Bi-Cycle-	123
		Trucks-	61	E. Rickshaw	47	Trucks	63	E.Rikshaw	19
		Scotr/Mcycle-	140	Thela	15	Sctr/M.cycle	75	Thela	13
		Car	92			Car	70		
		Tata Sumu/ Majik	42			Tata Sumu/ Magic	38		
		Tempo/Auto-	45			Tempo/Auto	34		
		Total	453	Total	200	Total	350	Total	155
2	Lanka Railway Gate	Time:9:00 A.M to 11:00 A.M							
		In coming				Out going			
		Fast moving		Slow moving		Fast moving		Slow moving	
		Vehicle	Number	Vehicle	Number	Vehicle	Number	Vehicle	Number
		Bus/M. bus-	77	Bi-cycle-	140	Bus/M bus-	85	Bi-Cycle-	177
		Trucks	55	E.Rickshaw	25	Trucks	60	E.Rickshaw	19
		Scotr/Mcycle-	123	Thela	15	Sctr/M.cycle-	178	Thela	12
		Car-	178			Car	157		
		Tata Sumu/ Majik	41			Tata Sumu/ Majik	48		
		Tempo/Auto-	42			Tempo/Auto-	45		
		Total	516	Total	180	Total	573	Total	208
3	Lanka Shillong Road	Time:9:00 A.M to 11:00 A.M							
		In coming				Out going			
		Fast moving		Slow moving		Fast moving		Slow moving	
		Vehicle	Number	Vehicle	Number	Vehicle	Number	Vehicle	Number
		Winger/M.bus	17	Bi-cycle-	116	Winger/M bus-	15	Bi-Cycle-	205

		Trucks-	11	E. Rickshaw	18	Trucks	12	E. Rickshaw	14
		Scotr/Mcycle	67	Thela -	13	Sctr/M.cycle	46	Thela	12
		Car	74			Car	107		
		Tata Sumu/ Majik-	21			T. Sumu/ Majik	11		
		Tempo/Auto-	18			Tempo/Auto	16		
		Total	208	Total	147	Total	207	Total	231
4	Lanka Bus Stand	Time:9:00 A.M to 11:00 A.M							
		In coming				Out going			
		Fast moving		Slow moving		Fast moving		Slow moving	
		Vehicle	Number	Vehicle	Number	Vehicle	Number	Vehicle	Number
		Winger/M. bus	48	Bi-cycle-	118	Winger/M bus-	12	Bi-Cycle -	87
		Trucks	17	E. Rickshaw	34	Trucks -	14	E. Rickshaw -	37
		Scotr/Mcycle-	126	Thela-	21	Sctr/M.cycle-	98	Thela -	15
		Car-	97			Tata Sumu/Majik-	33		
		Tata Sumu/Majik-	52			Tempo/Auto-	25		
		Tempo/Auto-	33			Car	88		
		Total	373	Total	173	Total	270	Total	139

SOURCE: Survey Conducted by Town and Country Planning, Nagaon

5.7 PARKING:

Vehicle parking is a major problem in urban areas. With rapid growth of the urban area, the parking generation rate goes on increasing very quickly which creates major problems of parking in most of the urban areas. In the recent years, with the rapid development of economy and exorbitant increase in the motor-vehicles, parking problems in urban area have become increasingly prominent.

On street parking is found all over Lanka Town, parking usually spills over to other use areas like road carriageway and footpaths, open spaces. In turn they affect safety and environmental quality. Parking characteristics within the town

vary by areas, by land use activities and by time period. In residential areas it is by time period.

At present there is no Municipal identified parking area designated for public and private parking within Lanka town as well as Planning Area.. As per parking survey conducted by the Town and Country Planning, Nagaon it is observed that on street parking is found all over Lanka town. On- Street parking is observed to be high on Lanka Nagaon Road towards East and West and Shillong Road Area. On street parking at different places of Lanka town are observed as below:



On street parking

5.8 MAJOR ACCIDENT PRONE AREA:

As per records available from the Lanka Municipal Board and field verification it is found that there are frequent accidents are being happened in Lanka Town due to non traffic signal points and uncontrolled speed of the vehicles. Major accident prone areas of Lanka town are mentioned as below :

1. Highway turning with Lumding Road By Pass.
2. Lanka Nagaon Near Netaji Statue.
3. Lanka Laskar Pather Road Turning Shillong Road.
4. Infront of Lanka Kanaklata Statue.

5.9 TRANSPORTATION ISSUES AND REQUIREMENTS:

5.9.1 ILLEGAL VENDING ZONE:

- One of the major issues is of illegal vending on walking shoulders on the main streets.
- Due to illegal vending sometimes the actual accessible patch of road decrease to half lane only.
- If proper spaces are being allocated to street vendors in every zone the issue can be eliminated.
- Due to illegal possession of shoulders the pedestrian come down to road for their local trip and some time proves unsafe on congested area.
- Narrow road network with restricted capacity, particularly due to the illegal vending, resulting in congestion and loss of productivity.
- The problematic areas include intersection Lanka Shilong Road, Lanka Market, Lanka Nagaon Road and Lanka Lumding Road,

The photographs below depict the current scenario of the illegal vending zones which restricted the capacity of road resulting lead to congestion.

5.9.2 TRAFFIC CONGESTION:

- Traffic congestion is quite common in Lanka Town and it takes a lot of time to commute for the commuters.
- At many places geometry of the town is very less as they have not followed any norms and standards for the road pattern as well as for other related things like road cross sections and railway level crossing etc.
- Observed encroachments on the footpath by vendors, which acutely rise the traffic congestion between include intersection Lanka Link Road, Lanka Lumding road, Lanka Railway Station Area, Lanka State Bank Of India have this illegal vending and parking on both sides of the road and the resultant traffic need to resolve.

The highlighted light pink dots on map within town area shows the frequent congested road patches.

5.10 ROAD ENCROACHMENTS:

- Many factors can be listed out for such happenings, but few observations are mentioned below, which are
- Unauthorized parking of vehicle on pavement only.
- Many spots with exposed electric poles on pavement sides which leads to make space dead and potential for parking wheels.
- The town suffers from parking problems due to encroachment by vendors on road and off-street parking. As a result, the road width decreases and there is no space remaining to pass the vehicles or to give space to other vehicles.
- There is no designated space for parking in whole town,
- There are encroachment issues in areas namely both sides of Lanka Nagaon Road to Lanka Shillong Road, Near Lanka Railway station Area.
- Due to lack of space, it is difficult for vehicles to pass on.
- Also, Proper facilities are needed for loading, uplifting, and downloading.
- Encroachment on both sides of the road decreases the effective width which may cause road accidents and disturbs the smooth flow of traffic.

5.11 TRAFFIC SIGNAL POINTS :

There is no organized traffic signal points in Lanka town. Various junctions without traffic signals are there in the town area like- Lanka NH point, Lanka Netaji statue point and Fruit market point, resulting in unnecessary traffic jams and more requirement of traffic brigade occurs.

*Chapter: 6***INFRASTRUCTURE, PUBLIC UTILITIES & SERVICES**

The development pressure on towns and cities is increasing with the rising urban population and growth of urban areas. The development of cities in itself is dependent upon the public infrastructure services. The creation of urban infrastructure is expensive and time consuming. Therefore it requires the Government to play a major role in making lumpy investments.

A country's economic and social development is directly dependent on a country's infrastructure. Many developed countries make a lot of progress because of the enormous growth of economic and social infrastructures. A good infrastructure makes the work process easier, resulting in a positive and high productivity.

Urban infrastructure development is the foundation of every city and remains the key to ensuring basic services like water, sanitation, drainage, energy, and transport. With proper and planned urban infrastructure development, residents can enjoy better living conditions & live healthier lifestyles while benefiting from enhanced environmental sustainability.

Social Infrastructure is a subset of the infrastructure sector and typically includes assets that accommodate social services like Health, Education, Housing, Civic and utilities, Transports etc.

6.1 SOCIAL INFRASTRUCTURE:

Social infrastructure plays an important role to provide quality of life to the residents of the city. The effectiveness of social infrastructure in achieving the objective of city development plan would depend upon its capacity to contribute to improvement in the quality of life, enhanced self-dependency and city's sustainability. The level of social infrastructure shall aim the creation of liveable city through reducing the sense of alienation among the residents with less dependence on other settlements for basic infrastructure.

Social infrastructure refers to the facilities and mechanisms that ensure education, health care, community development, and social security, recreational and social welfare. The development cannot be looked at in isolation without considering the basic needs of the people, and a significant level of investment is needed in this sector. Usually this development referred to as the commitment towards realizing the vision of the city.

6.1.1 EDUCATION:

Education is an important factor influencing the quality of life of the people and future development of an area. It empowers them with skills and knowledge and helps them to better lead their life and access best of the employment opportunities available in the market. This in turn will impact the work force participation rate and economy of the area. There are many government and private schools, colleges in Lanka town. The existing scenario of Primary, Middle school and Higher secondary school and Govt. and private Colleges in Lanka area is shown in the table given below:

Table: Educational Facilities available in Lanka Master Plan Area:

Sl. No.	Category of Educational Institutions	Total Number of Institutions within Lanka Master Plan Area	Enrolment	Teachers
1	Lower Primary Schools	40	4885	116
2	Middle School	11	1443	54
3	High School	10	3045	114
4	Higher Secondary School	6	3648	89
5	i) Lanka College	1	2571	36
	2) Junior Colleges	5	1281	76
	3) B.Ed College	1	350	28

Source: Inspector of Schools, Elementary and Higher education



6.1.2 HEALTH:

Health facilities are places that provide health care. They include hospitals, clinics, outpatient care centers, and specialized care centers, such as birthing centers and psychiatric care centers. Health facilities is very poor in Lanka town Area compared with the village Area. It is not sufficient to meet the needs of the demand of the peoples. There is no Private Nursing Home and Maternity Centre in the town. As per data available following table shows the medical facilities within Lanka Master Plan Area.

Table : Medical facilities within Lanka Master Plan area:

Sl. No.	Lanka Planning Area	Health Centres	No. of Beds
1.	Lanka M. B. Area	1. BPHC, Lanka	
		2. Lankeshwari Hospital & Research Centre	-
		3. Sub Centre Jurapukhuri	
		4. Sub Centre , Punjabibasti	-

Source : Lanka M.B. and T&CP survey



6.1.3 WATER SUPPLY:

Water supply system in Lanka town is conducted by Urban Water supply scheme. Piped water is supplied to a section of the people of the town area and rest of the population depends upon individual source of water like ponds, ring wells and tube wells. The underground water reserve of the town is in a satisfactory condition hence it is felt that there will not be shortage of water for distribution in the town. Besides this, Kapili river is passes near the town from which water can be trapped for distribution if required in future for the projected population.

At present there are about 1786 households have water supply connection and 204 Nos. of Water supply street tap stand within Lanka MB Area.

6.1.4 POLICE STATIONS:

Lanka Master plan Area is controlled by Lanka police station which is located in the heart of the Lanka town.



Lanka Police Station

6.2 TRADE AND COMMERCE:

In case of commercial activities Lanka Town has been growing like other towns of Hojai District. As per data available from the Lanka Municipal Board the total No. of retail shops in the Town Area is 744 units and 156 No. of wholesale units.

Table: Data regarding Trade and Commerce within Lanka Municipal Area:

Sl. No	Type of business Units	Nos. of business Units	
		Wholesale	Retail sale
1	Grocery	54	33
2	Cloth	09	245
3	Medicine	38	58
4	Cycle shop	02	10
5	Hardware(cement dealer)	03	-
6	Electrical shop	07	20
7	Radio & T.V	12	14
8	Fruit shops	02	02
9	Egg shop	-	03
10	Jeweler	-	79
11	Hardware	05	161
12	Rice	02	40
13	Motor tyre dealer	-	07
14	Fertilizer	01	23
15	Optical shop	-	02
16	Meat shop	-	16
17	Timbers	05	06
18	Radio & Sewing machine	-	15
19	Book stall	09	10
20	Scooter & Motor cycle dealer	16	-

Source: Lanka Municipality Board

There are 3(Three) daily markets within Lanka Planning Area and 1 (One) weekly markets. Following table depicts the markets within Lanka Master Plan Area.

Table:

Sl. No.	Markets within Lanka Mater Plan Area	Name of market
1	Lanka Town Area	1. Lanka Lumding Rd. Near Public school.
		2. Shillong Rd. Islan Basti near petrol pump.
2	Village Area	3. Chamboria Bazar
		4. Bhalukmari Bazar

		5. Laskarpathar Bazar
3	Weekly market	6. Tuesday weekly market at Lanka town

Source : T&CP, Nagaon Survey and Lanka Municipality Board



Lanka Market

6.2.1 CREMATION /BURIAL GROUND:

In Lanka Master Plan Area total 15 Nos. of cremation grounds and only 1 (one) burial ground which is located at Dighaliati as shown in the table-28 below:

Sl. No.	Location / Ward No.	Number of Cremation Ground	Number of Burial Ground
1	Ward No. 1	-	1
2	Ward No. 2	-	-
3	Ward No. 3	-	1
4	Ward No. 4	1	1
5	Ward No. 5	1	-
6	Ward No. 6	1	-
7	Ward No. 7	1	-
8	Ward No. 8	1	-
9	Ward No. 9	-	-
10	Ward No. 10	1	-
11	Ward No. 11	-	-

Source:- Lanka Municipal Board

The existing cremation and burial grounds should be developed with the basic facilities like roads, waiting shed, water supply, electricity and drainage etc.

6.2.3 POST OFFICE:

There is 1(One) post office within Lanka Master Plan area, one is within Lanka Municipal Area. which are not sufficient to meet the need of the demand of the peoples.

6.2.4 FIRE STATION :

The entire Master Plan area of Lanka is covered by one Fire Station and it is situated in Lanka town area.

6.2.5 BANKS/FINANCIAL INSTITUTIONS:

Lanka Planning area is served by 6 (Six) nos. of Banks and the banks located within the planning area are shown in the table below:

Table: Banks in Lanka Municipal Area:

Sl. No.	Name of Banks	No. of banks
1	PUNJAB NATIONAL BANK	1
2	STATE BANK OF INDIA	1
3	UCO BANK	1
4	CANARA BANK	1
5	ICICI BANK	1
6	BANDHAN BANK	1

Source: Lanka Municipality Board

6.3 RECREATIONAL FACILITIES:

Recreational facilities plays an important role in providing venues for physical activity in urban areas. The facilities are incredibly important for a healthy,

vibrant community, and for citizens reaping the benefits of having a health community. Following table depicts the available of recreational facilities in the Lanka Municipal Area as well as the Planning Area.

Table: Recreational facilities within Lanka Master Plan Area :

Sl. No.	Recreational facilities	Nos. along with Name and Location
1	Parks	-
2	Playground	1
3	Stadium	-
4	Library	-
5	Museum	-
6	Cinema Hall	-
7	Public Auditorium	-
8	Swimming Pool	-

Source: Lanka Municipality Board

6.3.1 DRAINAGE SYSTEM :

The existing drainage facilities are not sufficient in Lanka town Area. Most of the new residential areas have grown without having drainage facilities. As per data received from the Lanka Municipal Board, the total drain length of Lanka M.B. Area is 44.72 Km. and out of the total length, 22.72 Km. is R.C.C and 22.00 Km. is Kacha drain. As the Kapili River passes near the Lanka town, a major part of the storm water generated in the town flowed out to the Kapili River. Below table shows the length of drains.

Table : Drain Length of Lanka Town Area :

Sl. No.	Toal drain lenth	Length in Km.	
		R.C.C.	Kachha
1	12.479 km	12.479	-

Source :Lanka M.B

6.3.2 SEWERAGE SYSTEM:

At present there is no sewerage system in Lanka town as well as in the planning area. The mode of disposal is through the septic tanks with soak pits arrangement. Most of the families day to day washables dirty water and the bathroom water is disposed in own soak pits. Some of the families washable water discharge is into the open municipal drains. Almost all the holdings in the town have individual septic tank. There are no dry latrines.

6.4 SOLID-WASTE MANAGEMENT:

The management of municipal solid waste is one of the main functions of all Urban Local Bodies (ULBs) in the country. All ULBs are required to meticulously plan, implement and monitor all systems of urban service delivery especially that of municipal solid waste. With limited financial resources, technical capacities and land availability, urban local bodies are constantly striving to meet this challenge.

As per data received from Lanka Municipality Board total waste generated per day in Lanka town is approximately 2 metric tons and collects about 1 tons (50%) from various source like households, commercial establishments, hotel, marketplace, drain cleaning and street sweeping, construction waste etc. Presently, following table depicts the nos. of vehicles and other equipments used for solid waste management system by the Lanka Municipality Board.

Table: Vehicles and other equipments used for solid waste management system.

Sl. No.	ITEM	NUMBER
1	Roller	1
2	Tractor	1
3	Tempo van	1
4	Rog Machine	-
5	Tripper	2
6	Mini JCB	1
7	Water tank	1
8	Hydraulic Dustbin	8
9	JCB (Big)	1
10	Safai Kormosari	30
11	Compactor	1
12	Sew car van	1
13	Mini loader	2

14	407 Dumper	1
15	709 truck	1
16	TATA sumo	1

Source : Lanka M. B

Sl. No.	Type of Educational Institute	Norms	Existing Numbers	Deficit	Total Requirement
1	Primary school	1 in 2500 population	40	2	2
2	Middle school	1 in 5000 population	11	9	9
3	High school	1 in 7500 population	10	4	4
4	Higher Secondary school	1 in 90,000 population	6	-	-
5	General college	1 in 1,25,000 population	1	-	-
6	Junior college	1 in 90,000 Population	5	-	-
7	B. Ed. College		1	-	-
Health					
8	Intermediate Hospital	1 in 1,00,000 population	1	-	-
9	Nursing Home, Maternityhome	1 in 45,000 population	1	2	2
10	Sub-Dispensary	1 in 15,000 population	2	5	5
Communication					
11	Post Office	1 for 15,000 population	1	6	6
12	Police Station	1 for 90,000 population	1	-	-
13	Fire Station	1 for 2,00,000 population	1	-	-

CHAPTER-7**ENVIRONMENT AND CITY BEUTIFICATION PLAN**

7.1 DESCRIPTION OF ECO-FRIENDLY AREAS LIKE WATER BODIES; BEELS; FORESTS; AND ALSO HERITAGE AREAS:**ECO-FRIENDLY AREAS**

Eco-friendly literally means earth-friendly or not harmful to the environment. This term most commonly refers to products that contribute to green living or practices that help conserve resources like water and energy. Eco-friendly products also prevent contributions to air, water and land pollution. Process for making a town eco-friendly were-

=COMMUNITY GARDEN,

= GREEN YOUR BUILDING,

= SMART ENERGY POLICIES,

=ENCOURAGE BICYCLING AMONG CITIZENS

=REDUCE, REUSE AND RECYCLE,

= URBAN FORESTRY, EFFICIENT PUBLIC TRANSPORT, QUALITY PUBLIC SPACES etc.

7.2 ECO-SENSITIVE AND WETLANDS OF LANKA MASTER PLAN AREA

It is a rain-shadow region because of its unique location between the West Jaintia Hills to the west and Mikir Hills to the east. Therefore, the Rainfall is very less throughout the year. In the Lanka Master Plan Area a few artificial and natural ponds were found, among them is Bijoyghat pond. Lanka forward club pond, Raj pukhuri, Ram Krishna Mission pond, Namghar pond, Sarga Dham

pond, Chat puja pond, Mukti Ghat pond, Lankeswari Mandir Pond etc are important. All these ponds plays important role for the town people and so all these to be preserve and conserve. Wetland, Marshy lands were totally absent. However, the Kopili Par, OK bow in shape is also 2.5 Km. away from the Lanka Master Plan Area boundary. The River Kopili flows through the south western direction from the boundary of Lanka Master Plan Area.

7.3 HISTORICAL PLACE AT LOCAL LEVEL:-

Lankeswari temple at Lanka town is one of the oldest temple of the region. Lankeswari Temple is established 100 years ago at Lanka Assam, where every year people cerebrates Durga Puja.



Strategies for Development of Recreational Areas

Recreation is any physical or psychological revitalization through the voluntary pursuit of leisure time. It is an activity which is relaxing to people and provide diversions from their normal routine. Generally there are four types of Recreational activities:

Revitalization: Restoration and enhancement of mental and physical health.

Play:-relaxation and exercise

Adventure: - Excitement and challenge

Education: organized and incidental

Indoor Facilities consist of library, clubs, cinema hall, auditorium, multiplex, art and craft centre, shopping mall, food courts, cyber, gymnasium etc.

Outdoor recreation facilities consist of gardens, parks, play ground, golf courses, zoo, and botanical garden, race course, stadium, exhibition ground, water sports complex, green ways etc.

Proposal for augmentation and development of Recreational Facilities:

: - Development of green belts, plantation, parks, ghats, plazas, Beautification of Ponds abreast the urban set up and invite nature harsh environment through myriad ways.

: - Amusement parks to be developed along with horticulture, pisi culture, herbal arks, etc

: - Development of eco-tourism with provision of water theme parks, weekend resorts, clubs, etc at planning area level.

Proposed strategies to boost tourism:

As a service industry, tourism has numerous tangibla and intangible elements. Major tangible elements include transportation, accommodation, and other components of a hospitality industry. Most intangible elements relate to the purpose or motivation for becoming a tourist, such as rest, relaxation, the opportunity to meet new people and experience other cultures, or simply to do something different or have an adventure.

Tourism is vital for every place, due to the income generated by the consumption of goods and services by tourist, the taxes levied on business in the tourism industry, and the opportunity for employment and economic advancement by working in the industry. For these reasons government and private agencies sometimes promote a specific region as tourist destination, and support the development of advancement by working in the industry. For these reasons government and some private agencies sometimes promote a specific region as tourist destination, and support the development of a tourism industry in that area. The contemporary phenomenon of mass tourism may result in overdevelopment; however alternative forms of tourism such as ecotourism seek to avoid such outcomes by pursuing tourism in a sustainable way.

Although there is no any important Tourist Place within Lanka Master Plan Area, however there were few tourist places which attract tourist at local level

which is located at a few Km from the Lanka Town. Among them were, Hojai Archeological Park (18 Km), Kopili Par (2.5 Km), Harlongpharla Picnic spot (24.5 Km) etc.

7.4 CITY BEAUTIFICATION PLAN/PROPOSALS

Roadside plantation:

Roadside plantation acts as a buffer between the people and government- owned forests, and it will help to reduce the extensive indiscriminate destruction of forests. Roadside tree planting can make significant improvements to the quality of roads and the environment and can protect key natural resources, especially in ASAL regions where vegetation is essential in binding the soil with organic matter that aids in enhanced infiltration and water retention in the soil.

Planting trees along the road sides, highways and pathway is known as avenue plantation. Avenue plantation is generally practiced for the aesthetic value, Beautification, shade purpose, control of soil erosion and for its economic use of timber, flowers & fruits. Best trees for roadside plantation are Neem, Krishna Chura, Radha Chura, Sonaru etc. Trees also gives us fresh air as they produce oxygen. Trees are planted along the roadside as they provide shade to the travelers during summers.

Below table shows the Proposal of Roadside tree Plantation alongside the major Road of Lanka Town Area.

Table:-

Sl. No.	Name of the Road	Length (approx.)
1	Lanka –Nagaon Road	2 km (Both side)
2	Lanka-Shillong Road	2 km (Both side)
3	Lanka –Lumding Road	2 km (Both side)
4	Lanka Cattle Market and Vegetable Road	3 Km (Both side)
5	Lanka Lumding Road	5 Km (Both side)
6	Netaji Road	1 Km (Both side)

Requirements and strategies:-

One Kind of Flowering Trees on Both Sides.

Two Kinds of Flowering Trees Blooming at one Time on both Sides of Road.

3. Two Kinds of Flowering Trees Blooming at Different Time on both Sides of the Roads.

4. Shady Trees Only on both Sides of Roads.

The trees should be planted at least 12 m apart from the centre of the carriageway.

If the road is constructed on the embankment, the trees should be planted as possible as high on the sides of the embankment.

Urban agriculture, urban farming, or urban gardening is the practice of cultivating, processing, and distributing food in or around areas. Urban agriculture is also the term used for animal husbandry, aquaculture, urban beekeeping, and horticulture. These activities occur in peri-urban areas as well. Peri-urban agriculture may have different characteristics.

Urban agriculture can reflect varying levels of economic and social development. It may be a social movement for sustainable communities, where organic growers, "foodies", and "locavores" form social networks founded on a shared ethos of nature and community holism. These networks can evolve when receiving formal institutional support, becoming integrated into local town planning as a "transition town" movement for sustainable urban development. For others, food security, nutrition, and income generation are key motivations for the practice. In both scenarios, more direct access to fresh vegetables, fruits, and meat products through urban agriculture can improve food security and food safety.

Types of Urban Farming:

Backyard Gardens. This is the growing of food on home property. ...

Tactical Gardens. This involves using the limited space available to practice agriculture without having to incur hefty expenses.

Street landscaping.

Forest gardening.

Greenhouses.

Rooftop gardens.

Green walls

Vertical farms.

Strategies:

Allotment gardens: An allotment garden is a plot or parcel of urban or suburban land made available for individual, non-commercial gardening or food growing and recreation.

Community gardens: Community gardens are an emerging form of urban farming.

Inventory of your town land (and rooftops)

Partnerships and Cultivate market access

Urban forestry is the care and management of single trees and tree populations in urban settings for the purpose of improving the urban environment. Urban forestry involves both planning and management, including the programming of care and maintenance operations of the urban forest. Urban forestry advocates the role of trees as a critical part of the urban infrastructure. Urban foresters plant and maintain trees, support appropriate tree and forest preservation, conduct research and promote the many benefits trees provide. Urban forestry is practiced by municipal and commercial arborists, municipal and utility foresters, environmental policymakers, city planners, consultants, educators, researchers and community activists. The urban forestry comprises all green elements under urban influence such as, Street trees and road plantations, Public green areas, such as parks, gardens, cemeteries, Semi-private space, such as green space in residential areas and in industrial or specially designated parks.

Strategies:

Increase tree planting in neighbor hoods with low urban forest cover.

Increase Street and park tree diversity.

Plant trees to support green infrastructure and reduce climate change

Enhance biodiversity through tree planting.

Update inventory and data management for public trees.

Manage public trees for public safety and support tree health.

Work together with local people and the urban NGO related to forestry.

Raise awareness of the importance of the urban forest.

Support volunteers, NGOs, schools, and neighborhood groups in urban forest stewardship.

7.5 Public Rain Water Harvesting Scheme:

Rainwater harvesting (RWH) is the collection and storage of rain, rather than allowing it to run off. Rainwater is collected from a roof-like surface and redirected to a tank, cistern, deep pit (well, shaft, or borehole), aquifer, or a reservoir with percolation, so that it seeps down and restores the ground water.

Harvesting rainwater allows the collection of large amounts of water and mitigates the effects of drought. Most rooftops provide the necessary platform for collecting water. Rainwater is mostly free from harmful chemicals, which makes it suitable for irrigation purposes. There are two ways of harvesting rainwater, namely; surface runoff harvesting and rooftop rainwater harvesting.

There are two major techniques of rainwater harvesting.

Surface runoff harvesting:- In this method, rainwater flows away as surface runoff and can be stored for future use. Surface water can be stored by diverting the flow of small creeks and streams into reservoirs on the surface or underground. It can provide water for farming, for cattle and also for general domestic use. Surface runoff harvesting is most suitable in urban areas. Rooftop rainwater/storm runoff can be harvested in urban areas through:

- Recharge Pit
- Recharge Trench
- Tube well
- Recharge Well

Groundwater recharge

Groundwater recharge is a hydrologic process where water moves downward from surface water to groundwater. Recharge is the primary method through which water enters an aquifer. The aquifer also serves as a distribution system. The surplus rainwater can then be used to recharge groundwater aquifer through artificial recharge techniques.

Rainwater in rural areas can be harvested through:

- Gully Plug
- Contour Bund
- Dugwell Recharge
- Percolation Tank
- Check Dam/Cement Plug/Nala Bund
- Recharge Shaft

Although rainwater harvesting measure is deemed to be a desirable concept since the last few years, it is rarely being implemented in rural India. Different regions of the country practiced a variety of rainwater harvesting and artificial recharge methods. Some ancient rainwater harvesting methods which includes Madakas, Ahar Pynes, Surangas, Taankas, etc.

Water Harvesting Schemes in India

Steps taken by the Central Government to control water depletion and promote rain water harvesting / conservation are as under:

1. Government of India launched Jal Shakti Abhiyan (JSA) in 2019, a time bound campaign with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks in India. Ministry of Jal Shakti visited water stressed districts and to work in close collaboration with district level officials to undertake suitable interventions. In addition, 'Jal Shakti Abhiyan – Catch the Rain' campaign has been launched by Hon'ble Prime Minister of India on 22 March 2021.
2. National Water Policy (2012) has been formulated by Department of Water Resources, RD & GR, inter-alia advocates rainwater harvesting and conservation of water and highlights the need for augmenting the availability of water through direct use of rainfall. It also inter-alia, advocates conservation of river, river bodies and infrastructure should be undertaken in a scientifically planned manner through community participation. Further, encroachment and diversion of water bodies and drainage channels must not be allowed and wherever, it has taken place, it should be restored to the extent feasible and maintained properly.
3. In compliance to the decision taken by the Committee of Secretaries, an 'Inter Ministerial Committee' under the Chairmanship of Secretary (WR, RD & GR) has been constituted to take forward the subject of 'Push on Water Conservation Related Activities for Optimum Utilization of Monsoon Rainfall'.
4. Ministry has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for regulation of its development, which also includes provision of rain water harvesting.
5. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by CGWB in consultation with States/UTs which is a macro level plan indicating various structures for the different terrain conditions of the country including estimated cost. The Master Plan envisages construction of about 1.42 crore Rain water harvesting and artificial recharge structures in the Country to harness 185 Billion Cubic Metre (BCM) of monsoon rainfall.
6. CGWB has taken up Aquifer Mapping and Management Programme during XII Plan, under the scheme of Ground Water Management and Regulation. The Aquifer Mapping is aimed to delineate aquifer disposition and their characterization for preparation of aquifer/ area specific ground water management plans with community participation. The management plans are

shared with the respective State governments for taking appropriate measures / implementation.

7. Best practices of water conservation by various entities including private persons, NGOs, PSUs etc have been compiled and put on the web site of the Ministry for the benefit of general public. An interactive link on best practices has also been created for receiving inputs from public, which, after necessary evaluation/validation are put on the website for the benefit of the public.

8. Department of Water Resources, RD& GR has instituted National Water awards to incentivize good practices in water conservation and ground water recharge.

9. Mass awareness programmes (Trainings, Seminars, Workshops, Exhibitions, Trade Fares and Painting Competitions etc.) are conducted from time to time each year under the information, Education & Communication (IEC) Scheme of Do WR, RD & GR in various parts of the Country to promote rain water harvesting and artificial recharge to ground water.

10. The Ministry of Rural Development in consultation and agreement with the Department of Water Resources, RD & GR and the Ministry of Agriculture & Farmers' Welfare has developed an actionable framework for Natural Resources Management (NRM), titled 'Mission Water Conservation' to ensure gainful utilization of funds. The Framework strives to ensure synergies in Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), erstwhile integrated Watershed Management Programme (IWMP) now PMKSY Watershed Development Component and Command Area Development & Water Management (CADWM), given their common objectives. Types of common works undertaken under these programmes/ schemes are water conservation and management, water harvesting, soil and moisture conservation, groundwater recharge, flood protection, land development, Command Area Development & Watershed Management.

11. Central Government supports construction of water harvesting and conservation works primarily through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Pradhan Mantri Krishi Sinchayee Yojana – Watershed Development Component (PMKSY-WDC).

12. Atal Bhujal Yojana (ABHY), a Rs.6000 crore scheme with World Bank funding, for sustainable management of ground water with community participation is being taken up in the identified over-exploited and water stressed areas fall in the States of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. This scheme is expected to contribute significantly towards water and food security of the participating states.

Strategies at Local Level:

At local level, Urban Local Body/Municipal Board in compliance with Rain water Harvesting should strictly follow the Government Guidelines, Circulars, Manual, model circulated time to time. In different Structural construction, Planning, Drawing, there should be the provision of Rain water harvesting system. In this regards, authority related to the permission of construction of Houses, Building, Structure should follow the rules, Byelaws of Building rules. Regarding rain water harvesting in the Lanka Planning Area, Lanka Municipal Board should strictly follow the Building Rules-2014 Govt. of Assam in issuing Building construction permission and also to create Public awareness among people of the locality in rain water harvesting techniques.

7.6 Development of parks and recreational spaces with Identification and demarcation of Open Space for sports, Cultural function, fairs etc. in Lanka Planning Area:-

Due to rapid growth of population, the present recreational facilities are not sufficient to fulfill the needs of the people of the Lanka Town. In Lanka Town there is no any organized park for the Children as well senior citizens.

Proposal for Construction of Playground Infrastructure and Parks & other recreational Facilities in Lanka Planning Area:-

Sl. No.	Name of the Open space/ site	Proposal
1	Public High school field	Development of Playground infrastructure with Spectators Gallery, Pavilion, Indoor Stadium, and Gymnasium will modern amenities.

2.	Napko Field	Construction of Open theater with all modern facilities.
3	Lachit Nagar, Near Garu Bazar	Construction of Public Auditorium with all modern facilities.
4.	Suitable Plot of land Within Municipal Area	Proposal of construction of 4 Nos. of Modern Marks within the Lanka Municipal Board.
5.	Suitable Plot of land	Proposal for construction of 1 Children Parks and 1 Community centre at each Revenue village of the Lanka Planning Area.

Source:-Lanka Municipal Board

*Chapter: 8***LAND USE PLAN**

8.1 EXISTING LAND USE OF LANKA MASTER PLAN AREA -2021:

Land use gives an accurate picture of an urban area which is having great significance for future planning. The main purpose of land use classification is to provide framework for the development of a particular area. The need for studying the land use aspect is elaborated as follows: To know the arrangement of various parts of town put to different uses such as residential, commercial, industrial etc.

The study of land use holds a very significant place where a particular settlement can be recognized as a town depends on its functional structure. The functional activity can be regarded as the main regions for the growth of urban centre. The main purpose of land use study is to provide framework for the development of a particular area. It gives us an idea about the proportion of various types of land.

The Existing Land Use pattern of Lanka Master Plan Area was updated based on ground reality on the scientific base map prepared with the help of Satellite Image and Revenue records like village level cadastral sheets, Field Measurement Book sheets and Town Survey Sheets. The Lanka Planning Area is administratively divided into two entities, Urban and Rural. Urban area comprises of Lanka Municipal Board area of 8.15 Sq.Km. and Rural area of 22.9 Sq.Km. including 13 Nos. of villages. This chapter presents the existing land use analysis, 2021 for the planning area.

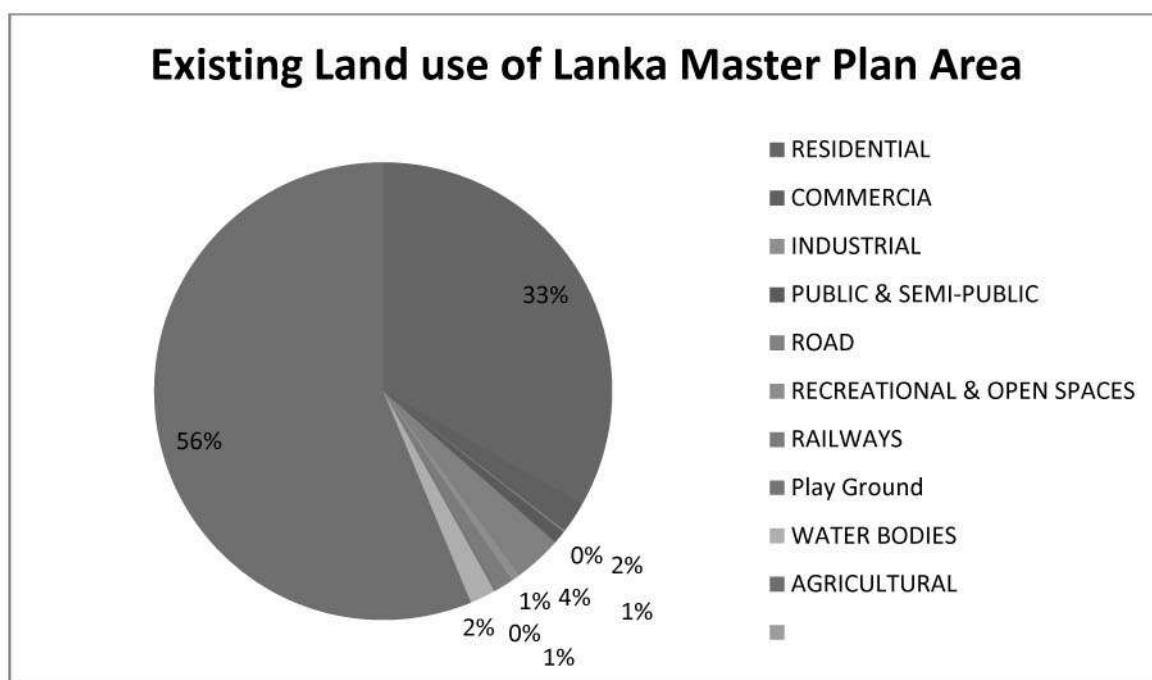
As a part of the preparation of GIS Based Master Plan- 2045, the study of the existing Land use pattern of Lanka Master plan area was carried out by a survey conducted by T&CP, District Office, Nagaon in order to formulate future policies so that a balanced approach can be made in allocating the future land uses. The existing landuse in Lanka Master plan area has been grouped into the following 10 (Ten) categories.

Table : Existing Land use of Lanka Master Plan Area :

SL. NO.	LAND-USE CATEGORY	AREA (IN SQ. KM)	% OF DEVELOPED AREA	% OF TOTAL PLANNING AREA
1	RESIDENTIAL	10.32	79.20	33.23
2	COMMERCIAL	0.69	5.29	2.22
3	INDUSTRIAL	0.03	0.23	0.10
4	PUBLIC & SEMI-PUBLIC	0.29	2.22	0.93
5	ROAD	1.06	8.13	3.41
6	RECREATIONAL & OPEN SPACES	0.19	1.46	0.61
7	RAILWAYS	0.38	2.92	1.22
8	Play Ground	0.07	0.54	0.22
	TOTAL DEVELOPED AREA	13.03	100.00	-
9	WATER BODIES	0.56	3.10	1.80
10	AGRICULTURAL	17.47	96.90	56.26
	TOTAL UNDEVELOPED AREA	18.03	-	-
	TOTAL AREA	31.05	-	100.00

The detailed land use analysis of the Lanka Master Plan Area-2021, gives the picture of the shape of the Urban and Rural land for various activities. From the above table it is seen that out of the total developed land, Residential use occupied 10.32 sq.km (79.20%) , 0.69 Sq.km (5.29 % occupied commercial use, 0.03 Sq.Km. 0.23 %) occupied by industrial use, 0.29 Sq. Km (2.22 %) occupied for public and semi public use which includes various Physical and social infrastructure like Educational institutes, Government Offices, Hospitals, Govt. Residential Buildings etc., 1.06 sq. km (8.13 %) of land occupied by roads, 0.19 sq.km. (1.46 %) of land occupied by recreation facilities, 0.38 sq. km (2.92 %) of land already occupied by railways and 0.07 Sq. km. (0.54 %) of land occupied by play ground.

Out of the undeveloped land, Agriculture land use being the predominant land use which occupies 17.47 Sq. Km.(96.90%) of the total planning area, about 0.56 Sq km (3.10 %) occupies by water bodies covered by some ponds and wetlands etc.



From the table it is also observed that there is a huge scope of future development of the planning area. The rural area has concentration of good amount of Agricultural land, open space and water bodies and urban area also has large amount of vacant land and open spaces.

Thus the Planning area has a good scope of development of existing residential buildings and construction of new residential buildings or redevelopment in conformity with the heritage importance and special regulations for the Planning Period up to 2045.

*Chapter: 9***PROPOSED LAND USE PLAN**

By using the planning policies, techniques, principles and projections, follow up of the URDPFI Guidelines, various recommendations and proposals for the future growth of Lanka Master Plan Area have been formulated. As such recommendation and proposals have been translated into land use plan to give them spatial dimension. The land use shown in the map indicates the functional relationship between various urban activities visualized up to 2045 and aims at to provide the most economics use of urban land.

The land requirement for various urban and rural activities have also been proposed on the basis of projected population of 52849 by 2045. The distribution of land into various broad categories of land use have been made keeping in view the minimum desirable standards of development and functional linkages between them. The following table shows the land proposed for various major uses.

Table: Proposed Land Use classifications for different uses of Lanka Master Plan, 2045:

Sl. No.	Land use Category	Area (in Sq. Km.)	Planning Area (in Sq. Km.)	% of Total Planning Area
1	Residential	10.32	12.78	41.16
2	Commercial	0.68	1.16	3.73
3	Industrial	0.03	0.21	0.68
4	Public & Semi-Public	0.30	0.33	1.06
5	Road	1.06	1.07	3.44
6	Recreational & Open Spaces	0.19	0.22	0.70
7	Railways	0.38	0.38	1.22

8	Playground	0.07	0.07	0.22
	Total developed area	13.03	-	-
9	Agricultural	17.47	14.27	45.95
10	Water Bodies	0.56	0.56	1.80
	Total undeveloped area	18.03		
	Total area	31.05	31.05	100.00

9.1 PROPOSED RESIDENTIAL USE:

To accommodate the projected population of 1,04,031, an area of about **2.90** Sq.km are proposed for residential use in Lanka Master Plan Area. The plan provides the following pattern of residential density.

9.1.1 High Density Zone:

Lanka Municipal area has been proposed as high density residential zone with a population of 75 to 100 persons per acre.

9.1.2 Medium Density Zone:

Within the residential areas of the villages just adjacent to the Municipal boundary have been proposed as Medium Density residential zone with a population of 50 to 75 persons per acre.

9.1.3 Low Density Zone:

The residential areas of the other villages have been proposed as low density residential zone with a population of 20 to 50 persons per acre.

9.2 PROPOSED COMMERCIAL LAND USE:

Due to rapid population growth in Lanka, the existing commercial area concentrated in and around the surrounding the town area will not be sufficient to meet the need of future projected population.

Therefore, an additional area of about **0.48** Sq. Km is proposed for commercial purposes in the Lanka Master Plan area.

9.3 PROPOSED INDUSTRIAL LAND USE:

There are good prospects for setting up of forest and agricultural based small and medium industries in Lanka Master Plan area. There are also good scopes for setting up of service and light consumer goods producing industries like agriculture implements, readymade garments, soap making, brick making, bakery, plastic goods, power loom etc. In addition to the existing industrial area, an area of about **0.18** Sq.Km. of land has been earmarked for setting up of medium and light industries in the Lanka Master Plan Area.

9.4 PROPOSED PUBLIC AND SEMI-PUBLIC USE:

Within Lanka Master Plan area land proposed for public and semi-public use is **0.03** Sq.km of the total developed area. The public and semipublic uses have been proposed on Govt. land available in the Planning Area.

9.5 PROPOSED CIRCULATION PLAN:

New road proposed under transportation will be **0.01** Sq.km. for Lanka Master Plan -2045. The proposals for improvement and widening of roads within Lanka Master Plan area of different places are mentioned in the table. All the major junction points should be developed in a planned manner. Modern traffic signaling system is to be improved within the Lanka Master Plan Area.

9.6 Hierarchy of Road proposed with width:

- 1) Primary road - 75" width
- 2) Secondary road - 50" width
- 3) Tertiary road - 20" width

9.7 PROPOSED RECREATIONAL :

A quite no. of parks and playgrounds are not available within the Lanka Master Plan area to meet the demand of the people and the condition of the existing parks and playgrounds are deplorable condition which are urgently need to be improved. Thus an area of **0.03** Sq.km. has been proposed for Recreational facilities in the Lanka Master Plan 2045.

9.9 INFRASTRUCTURE PROPOSALS:

The existing social and physical infrastructure facilities and their services of Lanka Master Plan area have been studied and the deficits and future requirements are calculated as per URDPFI Guidelines as below:-

9.9.1 Education:

The existing educational facilities and future requirement for Lanka Master Plan area up to the year 2045 have been estimated considering a higher standard as mentioned in the table below:-

Sl. No.	Type of Education al Institute	Norms	Existing Numbers	Deficit	Total Requirement
1	Primary school	1 in 2500 population	40	2	2
2	Middle school	1 in 5000 population	11	9	9
3	High school	1 in 7500 population	10	4	4
4	Higher Secondary school	1 in 90,000 population	6	-	-
5	General college	1 in 1,25,000 population	1	-	-
6	Junior college	1 in 90,000 Population	5	-	-
7	B. Ed. College		1	-	-
Health					
8	Intermediate Hospital	1 in 1,00,000 population	1	-	-
9	Nursing Home, Maternityhome	1 in 45,000 population	1	2	2

10	Sub-Dispensary	1 in 15,000 population	2	5	5
Communication					
11	Post Office	1 for 15,000 population	1	6	6
12	Police Station	1 for 90,000 population	1	-	-
13	Fire Station	1 for 2,00,000 population	1	-	-

9.10 SECTOR -WISE INVESTMENT PROPOSAL:

The sector wise requirement of implementation of various projects of Lanka Master Plan Area is detailed as table-38 below:

Sl. No.	Location	Project Name
Neighborhood Centre		
1.	Panjabi Basti	Neighborhood Center (1.25 Hac)
2.	Sambaria	Neighborhood Center (1.05 Hac)
3.	Pipol Pukhuri No.1	Neighborhood Center (1.15 Hac)
4.	Pipol Pukhuri No.2	Neighborhood Center (1 Hac)
5.	Bhalukmari	Neighborhood Center (0.90 Hac)
6	Rani Pukhuri	Neighborhood Center (1.25 Hac)
Solid Waste management		
7	Lanka Planning Area/ Ward No.08	Construction of Material Recovery Facility(Dry), Composting Machine(Wet).
8	Lanka Jan Area	Development of Solid Waste Engineering Landfill Site on 04 Bigha 03 Katha 15 Lessa of Land at Dag No. 179 of Kissam Lanka Jan under Hojai Mouza.
Drainage System		
9	Lanka Planing Area	Preparation of DPR for Drainage System for Lanka Town Area.
10	Lanka Town Area	Construction and Improvement of Existing Strom Water Drain.

11.	Lanka Town	Cleaning and Maintenance of existing Drain.
Water Bodies		
12	Lanka Planing Area	Repair and Renovation of Water Bodies in Planning Area link Bijoya Ghat, Lanka Forward Club Pond, Raj Pukhuri, Ram Krishna Mission Pond, Nam Ghar Pond, Sarga Dham Pond, Namghar Pond, Chat Puja Pond Near Lankeswari Mandir, Milon Titha Shib Bari Pond, Public Pond Adarsha Pally, Mukti Ghat Samsan Pond.
Religious Spots		
13	Lankeswari Mandir	Improvement of Jugijan as a religious tourism spot.
Traffic and Transportation		
14.	Lanka Planning Area/ Nagaon Road, Lanka Town, Ward No. 1	Construction of Bus Terminus
15.	Lanka Planning Area/ Lanka Town Near Veterinary	Construction of Truck Terminus
16.	Lanka Town Area	Construction of Cycle Parking
17.	Lanka Town Area	Construction of street Parking
18.	Lanka Town Area	Construction of Traffic Signals Point at various traffic congrats Area.
Fly over		
19.	Lanka Bus stand to Shillong Road	Construction of Fly over
Recreational Facility		
20.	Lanka Planning Area	Construction of Parks and Playgrounds.
21.	Lanka Town, Vijay Ghat	Construction of Parks
22.	Lanka High School back Side, Ward No.1	Construction of Parks
23.	Public High School Field	Construction of playground
24.	Lachit Nagar Near Goru Bazar, Ward No.9	Construction Of Auditorium / Library

25	Lanka Sport Association Lanka Town, Ward No.- 01	Construction of playground
Industrial Area		
26.	Bamun Gaon	Development of industrial Area
27.	Pub Bhalukmari Area	Development of industrial Area
28.	Rani pukhuri Area	Development of industrial Area
29.	Pipol Pukhuri	Development of industrial Area
30.	Cahbariya	Development of industrial Area
31	Lanka Patti	Development of industrial Area

Improvement and widening of Road with Drainage System		
	Name of Road	Length in km (Appx)
32.	Iddgah Road	0.07
33.	Ram Ballav Road	0.385
34.	Khargeswar Talukdar Road	0.45
35.	Rup Nagar Road Subway No.2	0.105
36.	Goshain Colony Road	0.36
37.	Budheswar Ali Path	0.3
38.	Lt. Keswar Sing Road	0.31
39.	Bimala Prasad Saliha Path	0.48
40.	Bibekananda Path	0.53
41.	Samsankali Path	0.3
42.	Anil Bora Path	
43.	Dharoni Para Path	0.2
44.	Namghor Road	0.49
45.	Gopinath Bordoloi Road	0.3
46.	Swasan Road	0.31
47.	Netaji Road	0.35
48.	Mahatma Gandhi Path	0.48
49.	College Para Path	0.33
50.	Sitalabari Path	0.33
51.	Satsanga Road	0.15
52.	Jai Hanuman road	0.57
53.	Lachit Nagar	0.15
54.	Gopal Nagar Path	0.3
55.	Netaji Road Subway1	0.065
56.	Tangabasti Subway6	0.082

57.	Bishnuram Tamuli Path	0.52
58.	Dasha Bandhu Road	0.45
59.	Jayram Nagar Road	1.06
60.	Rabindra Sarani Path	0.291

*Chapter: 10***DISASTER PLAN**

Disaster is an undesired calamities event that seriously disrupts the functioning of a community or society and causes human, material and economic or environment losses that exceed the community's or society's ability to cope using its own resources. Disasters are usually caused by nature but in some cases, it can be caused by human actions as well. Disaster can be broadly classified into water and climate related geology related and accidental related. Assam has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Flood, drought, cyclones, earth quakes and landslides have been recurrent phenomena.

At national level, the ministry of Home affairs is the nodal Ministry for all matters concerning disaster management and at state level State Disaster Response force under Ministry of Home, Govt. of Assam is the responsible agency to tackle any disasters within the State.

Lanka is one of the important town of Hojai district which is only 17.5 Km from Hojai Town. The Lanka region is Rain shadow Area as it is located between West Jaintia hills in the west and Mikir Hills in the East.

1.1 Mitigation Plan:

Any disaster management plan or emergency management plan consists of four phases, namely: Mitigation, Preparedness, Response and Recovery. The Mitigation component in an emergency management plan is aimed at reducing the risk, impact, effects of a disaster. Hence careful planning eliminate the phase is important to reduce or eliminate the long-term risk to human life, property from natural and manmade calamities. It's important to have mitigation plans led by local community, working together to identify, plan for in the event of a disaster and reduce vulnerabilities and promote long term personal and community resilience and sustainability. Mitigation Plans can

concentrate on both pre-disaster and post disaster efforts to reduce the impact of the disaster.

Pres-disaster Mitigation should focus on projects and interventions to address natural and man-made disaster to reduce risk to the population and property. This is mainly achieved by strengthening the resilience of National/state infrastructure. Post- disaster Mitigation efforts are primarily designed to reduce future damage in an affected area and decrease the loss of life and property and life due to the incidents following the disaster. The essential steps of hazard mitigation are:

- (1) Hazards identification
- (2) Vulnerability Analysis
- (3) Defining a Hazard Mitigation Strategy.
- (4) Implementation of Hazard Mitigation Activities and projects

As Lanka region falls in a rain shadow area, the entire region experiences less rainfall and prevails Dry and Drought like condition, hence the disaster vulnerable area mitigation plan focuses on Drought and Flood related eventualities and how can it be mitigated and have better preparedness. It is important to note that disaster management is an integrated task involving various government departments of region and the plan should focus on prevention, preparedness, mitigation, response, and measures.

Flood:

Although the entire Lanka Master Plan Area is not drain by any big rivers, beels etc, the region is less prone to flood. However, during the monsoon season and incessant rain for few days leads to rise of water level of kopili and jamuna river causes flood and submerged villages like Lankajan, jamunasit, Karilhana, Kopilipar, Dashin Laskar Pather, Farmapar etc under Lanka Revenue Circle. Reportedly, 2020 flood, around 10 metres of 23 km long embankment at Lanakjan Jamunasit in Lanka have been damaged.

Drought:

As Lanka region is a Rain Shaded area, there is scarcity of water for irrigation purpose for agricultural fields. There is no any such big rivers drain through the

entire Lanka Master Plan Area. However, in 2009 whole Hojai district was affected by Drought.

Sl. No.	Disastrous	Year of Occurrence	Area affected	Name of the localities
1.	Drought	2009	Hojai District	All the circles of the District

Sources:-Department of Disaster Management, Nagaon

Seasonal Hazard Analysis:

Hazards	January	Feb.	March	April	May	June	July	August	Sept	Oct	Nov.	Dec.
Cyclone	X	X	X	X	X	X	X	X	X	X	X	X
Flood					←	→						
Drought					←	→						
Earthquake	←	→									→	
Fire		←	→									
Lightening				←	→							
Epidemic	←	→									→	

Source:- Department of Disaster Management, Nagaon

Vulnerability (Risk and Hazards Analysis' :

Types of Hazards	Potential	Vulnerability	Vulnerable areas
Cyclone	Nil	-	-
Flood	Loss of crops, Human lives and animals and properties damage	Communication facility, Agriculture & Horticulture, Private infrastructure Houses, Irrigation sources, Electrical installations, Drinking water sources, Educational institution, and livestock	Surrounding Areas of the Lanka region
Drought	Drought human life and pets	Loss of Human lives & pets	Entire Lanka circle
Earthquake	Human lives & Structures both public & Pvt.	Loss of Human lives & structures both public & pvt.	Entire Lanka Circle
Fire	Lives and property	Loss of Human lives & structures both public & pvt.	Entire Lanka Circle
Epidemic	Human lives & Pets	Loss of Human lives and pets	Entire Lanka Circle
Lightening	Human lives	Loss of Human lives	Entire Lanka Circle

Source:-District Disaster Management Plan, 2020, DDMA, Nagaon

1.2 Prevention:

As part of the said natural disasters the following measures can be adopted by concerned govt. departments to avoid and minimize the impacts of natural disasters.

= The public work department should monitor the major water bodies like river, streams lakes for constant flow of water, rising level and identify potential areas along the water bodies which need additional embankment or revetments, and these works should be implemented on priority before the onset of the season.

= Power and communication should carry out through inspection of power lines, communication lines for defects and rectify them. Trees and branches which may damage power and communication lines should be trimmed or removed.

= Health department should ensure the primary and community health centers are equipped with medicines and medical staff. Preventive vaccines for epidemics should be stocked in adequate quantity. Chlorination of drinking water should be ensured to avoid the outbreak of epidemics in the event of cyclones and floods.

= The department of disaster management is the nodal agency in the Nagaon region and has already handled several flood and cyclone situation in the region. From this experience, it should be able to identify the low lying and vulnerable areas and the population of such places must be warned to be alert and to be ready to safer areas or to the relief camps in case of warning disaster.

= The department of civil supplies & consumer affairs should decide for creation of buffer stock of food grains by making required withdrawal from the food corporation of India. Also, adequate quantities of kerosene and diesel should be procured and made available through the fair price shops.

= Department of Agriculture should take steps to publicize precautionary measures to be taken to save the standing crops in the vulnerable areas. Farmers should be encouraged to have platforms in their fields to stock the crops. Desilting of the public and private irrigation canals should be ensured for quick drainage of paddy fields.

= Fisheries Department shall alert all the people residing on river bank villages and hamlets about the impending natural calamities and advise the fisherman not to venture into sea till normalcy is restored.

= Department of School education shall keep all schools ready for accommodating the evacuees and keep the central kitchens to function around

the clock with in charge of the centers. NCC and NSS students shall also be grouped to send them for relief works.

=Department of Animal Husbandry should store fodder, cattle feed, and poultry food etc. and also carries out the inoculation of animals against epidemics. The Key village units should harbor stray cattle with shelters.

=Transport Department should keep ready the list of sufficient numbers of earthmoving vehicles, transportation vehicles such as trucks, tractors, tippers, proclams, mini buses etc. Further, all the listed vehicle allocated in connection with calamity has to be kept in roadworthy condition for using them in emergency.

=Local Urban Bodies/Municipal Board shall make rearrangement for availability of Generators and pump sets at short notice. For areas with water logging and artificial flood local bodies should clear the L & U type drained which normally clog due to plastic materials and silt.

=Police department shall set up a Search & Rescue Team which shall contain at least 20 police personal for each jurisdiction of the superintendent of police.

=Similarly, the fire services department shall set up search & Rescue Team consisting of at least 6 members of each fire station.

1.3 Mitigation and Preparedness:

Pre-disaster planning consists of activities such as disaster mitigation and disaster preparedness. Disaster mitigation focuses on the hazard that causes the disaster and tries to eliminate or drastically reduce its effects. The best example of mitigation is the construction of embankments and construction of proper drainage system in flood prone areas to avoid floods. The other example includes retrofitting of weak buildings to make them earthquake resistant. And preparedness focuses on plans to respond to a disaster threat or occurrence. It takes into account estimation of emergency needs and identifies the resources to meet the needs.

The first objective of the preparedness is to reduce the disaster impact through appropriate actions and improve the capacity of those who are likely to be improving the capacity of those who are likely to be affected most. The second is to ensure that ongoing development continues to improve the capacities and capabilities of the system to strengthen preparedness efforts at community level. Finally, it guides reconstruction so as to ensure reduction in vulnerability. The

best example of preparedness activities are the development of community awareness and sanitization system through community education and administrative preparedness by way of stockpiling of supplies, developing emergency plans for rescue and relief. For successful mitigation plan it is necessary to identify short- medium-long term mitigation measures risks and damages.

The following steps can be taken to reduce the risk in the unfortunate event of the said natural disasters.

=Restore communication networks

=The task force in association with reach and rescue teams of police and fire should thoroughly search the affected area for survivors and injured.

=In case of heavy flooding and inundation, vehicular access may be restricted and hence suitable rafts/boats should be used to rescue and evacuate the people affected by the floods.

=Water logging in low lying residential areas should be pumped out and the pump out water could be let out through the nearest natural drain or canal. Also fire engines can be deployed to pump out water from affected areas during emergencies.

=Any breach in rivers, streams or natural drains should be protected with adequate sand bags or creation of temporary embankments to avoid further damage to property and human life.

=In case of heavy storms, power supply to areas which are in the primary path of the storm can be disconnected to avoid hazards due to breakage of power lines. Provisions should be made to provide generators for temporary power supply to storm affected areas.

=Relief camps should be opened in appropriate location where a large number of people are affected.

Table :- Mitigation

Type of Sector	Sub-sector	Mitigation Measures	Responsible Dept.	Time frame
Infrastructure Development	Road	Repair, Restoration of vulnerable points on roads before onset of monsoon	PWD/DRDA	During Normal time and immediately
	Embankments	Repair of vulnerable points in river/canal embankment during free flood period	Water Resources/Irrigation	During Normal time and immediately
	Bridge	Repair, restoration of vulnerable points on bridge before onset of flood	PWD, NH	During Normal time
	Communication	Ensure maintenance and proper functioning of electronic communication system	BSNL	Round the year
	Drinking water	Replacement of tube well/pipe water	PHE/ Health Deppt.	During Normal time and immediately
	Power	Immediate response for repair of electric line and supply	PWD, ASEB	Round the year
Health	Vaccination	Adequate stock piling of vaccines should be ensured	CMO, DVO, NGO,s	During Normal time and immediately
	Training	Training Programme of common people should be programmed for Health care, sanitation and first aid from village level to district	CMO, DVO, NGO,s	During Normal period

Livelihood	Awareness	Creating awareness among general public during normal time to insured human life	Leading NGO,s	During Normal time
	Agriculture	Alternant cropping pattern/flood resistance crops/crops insurance etc	Dy. Director Agriculture	During normal time and immediately after disaster.
Planning and Response	Relief/Rehabilitation	Regular updation of departmental contingency plan, Community awareness and involvement of NGO,s Regular conduct of mock drill	Line Departments	During Normal time

1.4 Response Plan:

Response measures are those taken immediately prior to and following disaster impact. It is important to have clear organizational chart structures with established line of authority within the Government mechanism to handle the response plan in case of natural calamities. Response plans include formation of functional teams and providing plans for the transportation, evacuation, search and rescue and rehabilitation. Survey and assessment part should be the part of response activity. Coordinated IEC activities should be initiated well in advance.

=Mock Drill should carry out twice a year.

=Make separate plan of operation and list of required materials, tools, machineries for each kind of disaster.

=Train the rescue team with equipments .

=Train the Panchayat leaders, Municipal leaders, Volunteers etc.

=Approach to NDMA and SDMA for any kind of assistance.

=Incident Command Officer shall organize regular coordination meeting with all DM committee members, Head of Offices, Public leaders, NGOs, and Senior citizen in consultation with the chairman.

=The RRTs, (Medical & Police) will be alerted by the incident Command Officer.

1.5 Aim of Disaster Response:

= To ensure the survival of the maximum possible number of victims, keeping them in the best possible Health in the circumstances.

= To re-established self sufficiency and essential services as quickly as possible for all population group.

=To repair or replace damaged infrastructure and regenerate viable economic activities.

=In situation of civil conflict the aim is to protect and assist the civilian population.

=In case involving population displacement the aim is to find durable solutions as quickly as possible.

1.6 Relief:

During the disaster

=Disseminate the warning of disaster from DDR & IC to all concerned destination in single attempt by using mass sms, announcement through radio, social media, print media and ask the people who are likely to be affected, to take shelter in safer places.

=Immediate deploy the forces to clear the route of search & rescue and also to clear the traffic from the route of rescue

=Command to the forces, NGO,s. SHG,s & volunteers to rush immediately to the affected area for search and rescue with all pre listed tools, equipment for disaster.

1.7 City Disaster Management Plan:

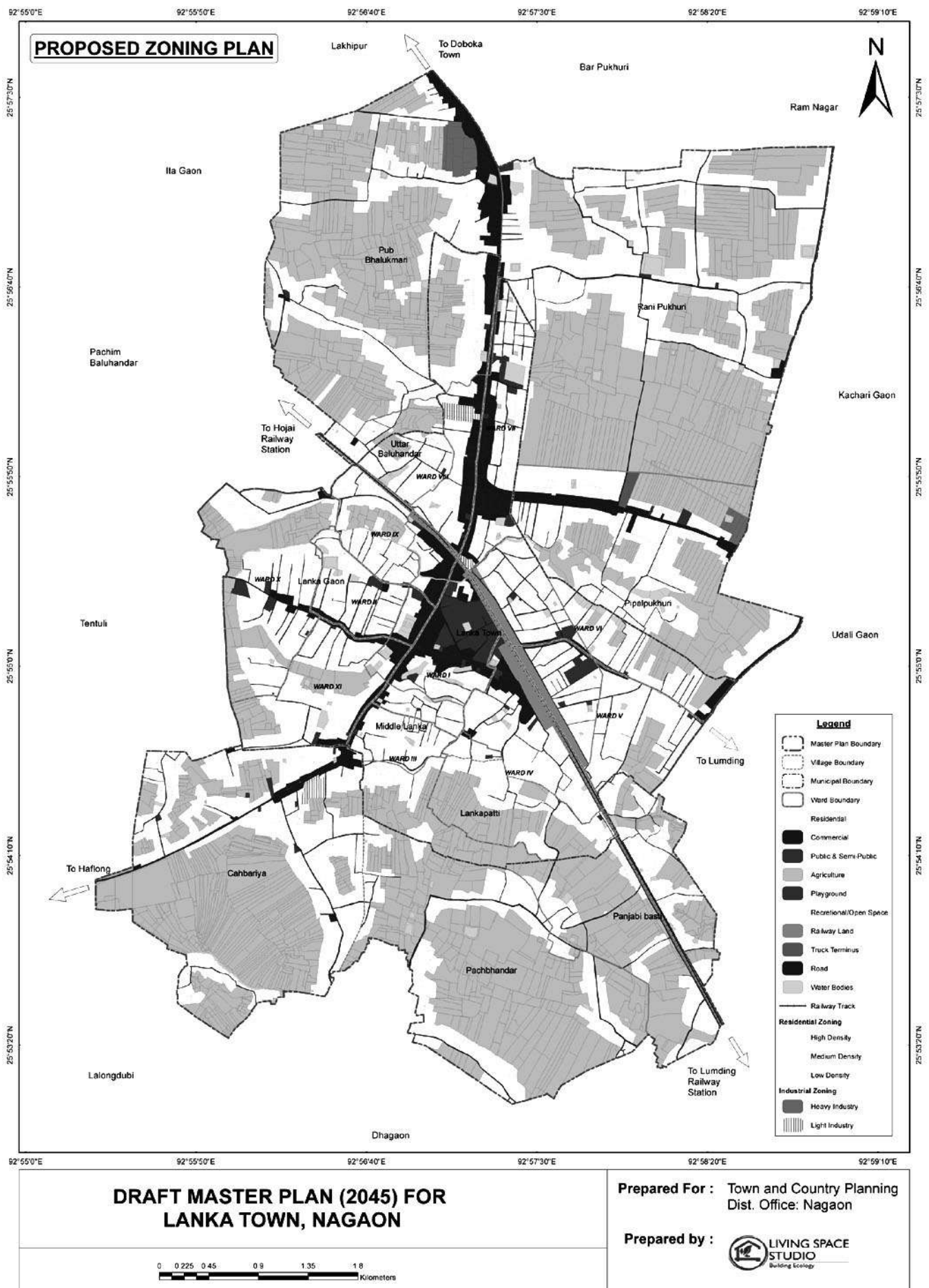
The points mentioned above should be part of a city or region level disaster management Plan. The Disaster Management Act, 2005 has brought a change from response & relief oriented approach. This has encouraged many cities to

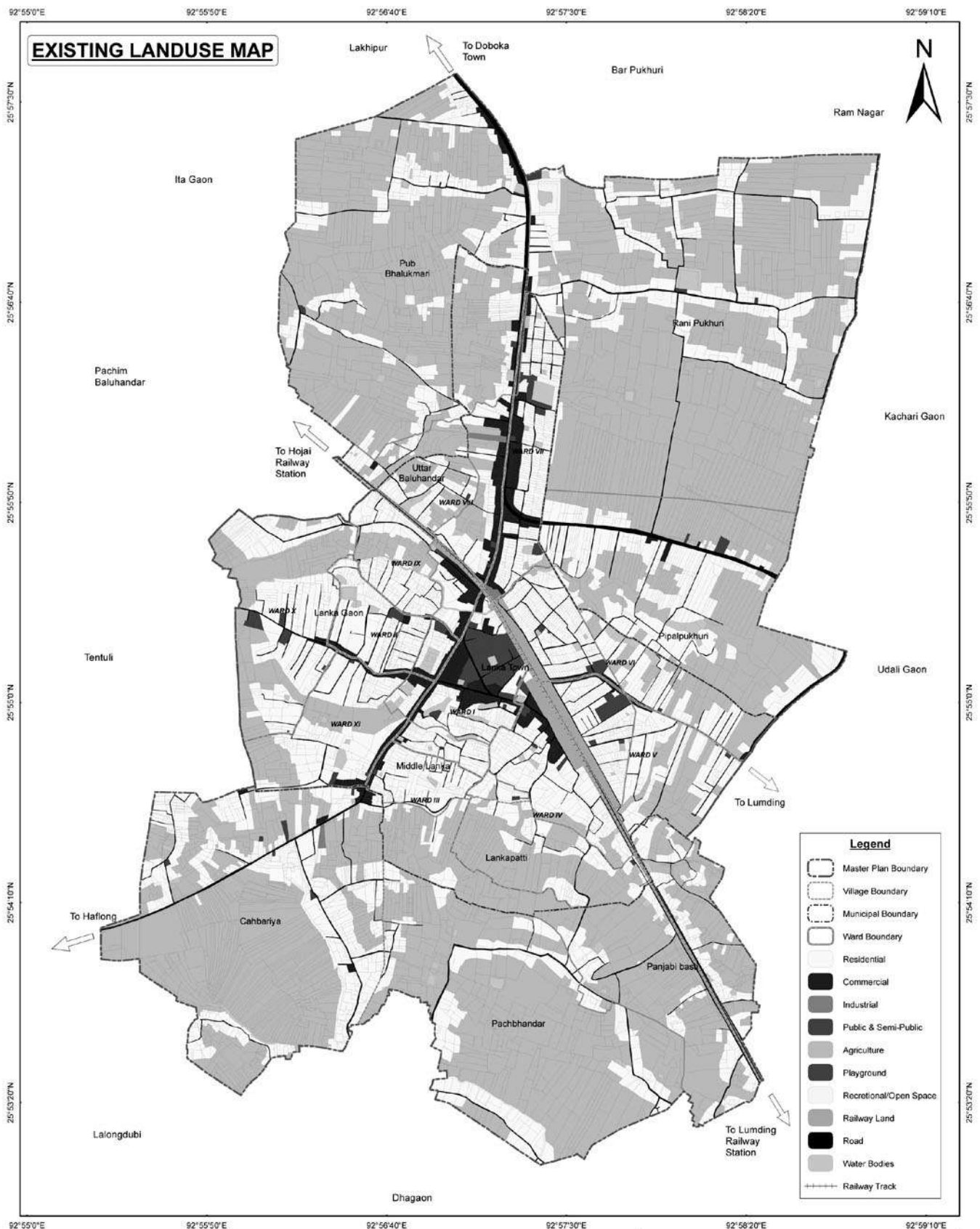
formulate a city disaster management plan, the same should be worked for Lanka MPA as well to enable it to be better prepared in case of natural disasters in the future. As part of Master Plan 2045 the authority feels there is a need for a CDMP for the Planning area covering the following general principles-

- =Risk & Hazard Assessment
- =Planning
- =Organization
- =Resource Utilization
- =Need for Specialist
- =Training

Generally, the CDMP prepared for the planning area should include sectoral plans covering the following aspects of disaster & emergency management:-

- =Overall Preparedness
- =Emergency Response
- =Prevention
- =Mitigation
- =Recovery
- =Reconstruction
- =Capacity Building Plans.





DRAFT MASTER PLAN (2045) FOR LANKA TOWN, NAGAON

Prepared For : Town and Country Planning
Dist. Office: Nagaon

Prepared by :  **LIVING SPACE
STUDIO**
Building Ecology

